CR-IR346RU Service Manual

Checks, Replacement and Adjustment of Parts (MC)

CR-IR346RU Service Manual – Contents

Checks, Replacement and Adjustment of Parts (MC)

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Control Sheet

Issue date	Revision number	Reason	Pages affected
10/10/2000	00	New release (FM2887)	All pages
08/30/2001	01	Support for software version A05 (FM3058)	MC–2–4, 6, 8, 21, 32, 33, 59.1–59.4, 63, 122, 134, 138, 139, 150, 151, 151.1–151.4, 152–157, 164, 165.1–165.4, 178, 186–251

1. Check/Adjustment Procedures for Each Unit

Precautions for Check, Replacement, and Adjustment

- In this volume, descriptions are omitted regarding components that do not require special attention or adjustment during their removal/reinstallation. For removal procedures for such components, refer to the Parts List Volume.
- When performing check/replacement/adjustment procedures on the machine, the following precautions should be observed.

WARNING

To avoid electric shock hazards, power OFF the machine before performing the procedures.

WARNING/CAUTION

Observe the warnings and cautions described in the "Safety Precautions."

CAUTIONS

- *When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.*
- *Do not remove the cover of the scanning optics unit.*
- *Never remove the red-painted screws.*

◆ INSTRUCTION ◆

Some of the illustrations in this volume contain check/adjustment and half-punch indicators as needed.
For removal and reinstallation, perform the procedures as instructed by such indicators.

- *Check/Adjustment indicator:*

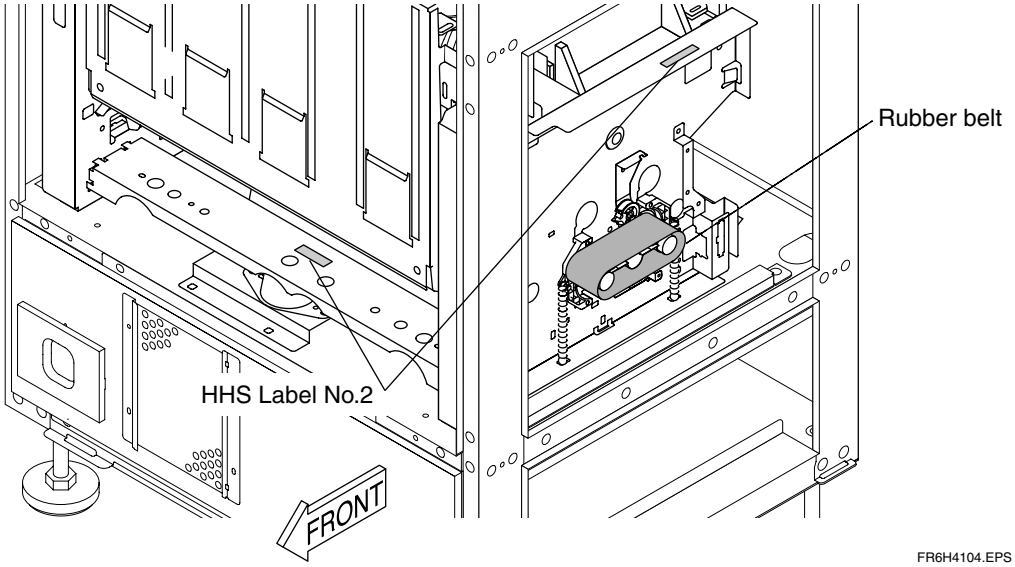
Indicates that it is necessary to check or adjust the installation location when the part or component removed is to be reinstalled.
This indicator is placed in the illustration that depicts the procedures for removing the parts and components.
When you see this indicator, refer to its relevant "■ Check/Adjustment Procedures."

- *Half-punch indicator:*

Indicates that it is necessary to align the half-punches when installing the parts or components.
However, it is not indicated for the half-punches for improving ease of assembly or preventing erroneous assembly procedures.

◆ *INSTRUCTIONS* ◆

- *Never remove the rubber belt of the subscanning unit, except for its replacement.*



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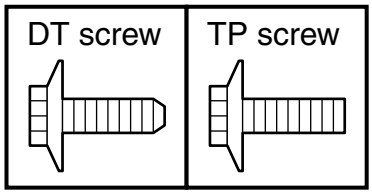
- *The yellow-painted screws require adjustments when components are reinstalled. When reinstalling the components, follow the check/adjustment procedures.*

◆ *NOTE* ◆

The TP screw used to secure the ground wire is similar in shape to a DT screw. When attaching the screw, check its shape to avoid confusing it with a wrong one.



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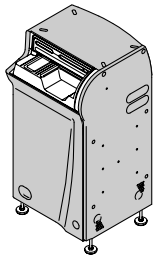
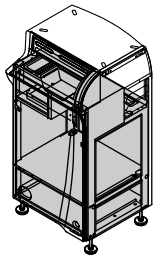
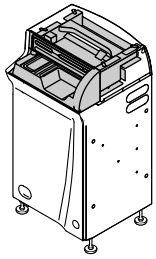
3. Covers 	3. Removing and Reinstalling the Covers MC-8 3.1 Covers MC-8
4. Housings 	4. Removing and Reinstalling the Housings MC-10 4.1 INV12B Board MC-10 4.2 Inverter Assembly MC-12 4.3 Fan (FAN4) MC-14 4.4 INV12A Board MC-16 4.5 Fan (FAN3) MC-18
5. Cassette Set Unit 	5. Removing and Reinstalling the Cassette Set Unit MC-20 5.1 Shelf Cover Assembly MC-20 5.2 Shutter MC-22 5.3 Cassette Set Unit MC-24 5.4 Wrong-Insertion Prevention Bracket Assembly MC-26 5.5 Solenoid (SolA1) MC-28 5.6 Hold Pin MC-30 5.7 Inch/Metric Changeover Guide MC-32 5.8 Suction Sensor (SA5) MC-34 5.9 Suction Cup MC-36 5.10 IP Removal Arm MC-40 5.11 Motor (MA1) MC-42 5.12 Roller MC-44 5.13 Guide Plate MC-48 5.14 Stopper MC-50 5.15 Actuator (Cassette IN Detection) MC-52 5.16 Sensor (SA2) MC-54 5.17 Roller Assembly MC-56 5.18 Movable Guide Assembly MC-58 5.19 Sensor (SA3) MC-59.1

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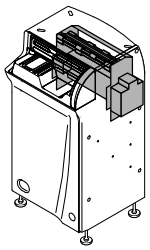
6. Erasure Conveyor



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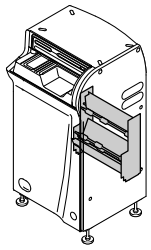
7. Side-Positioning Conveyor



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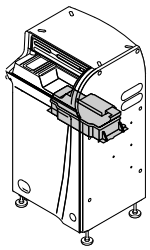
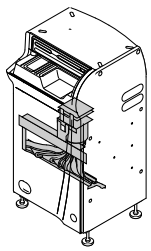


8. Removing and Reinstalling the Scanning Optics Unit MC-132

8.1 Scanning Optics Unit MC-132

9. Light-Collecting Unit



9. Removing and Reinstalling the Light-Collecting Unit MC-136

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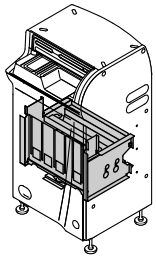
10. Subscanning Unit



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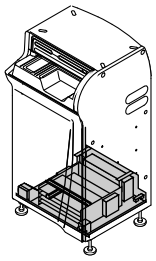
11. Controller



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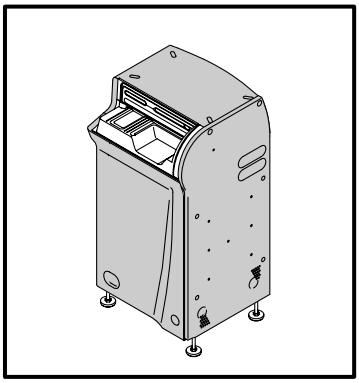
3. Removing and Reinstalling the Covers

3.1 Covers



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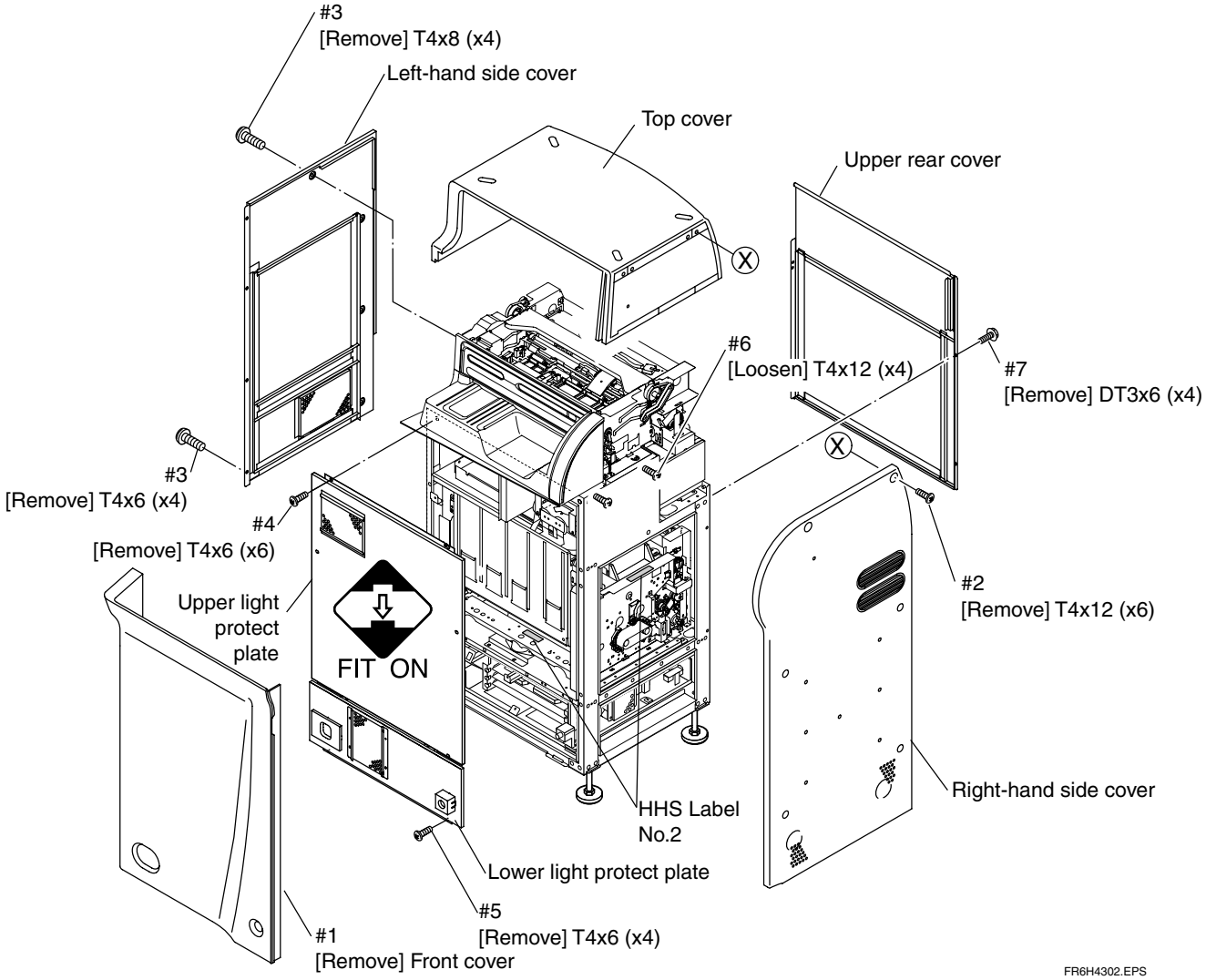
■ Removal Procedures

(1) Remove the covers.



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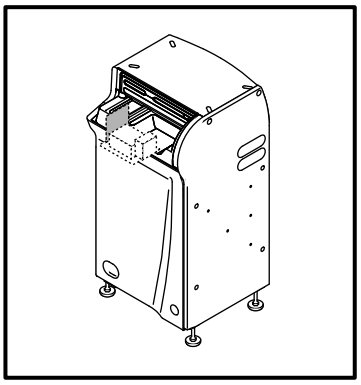
■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

4. Removing and Reinstalling the Housings

4.1 INV12B Board



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CAUTION

When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electric parts on the board.

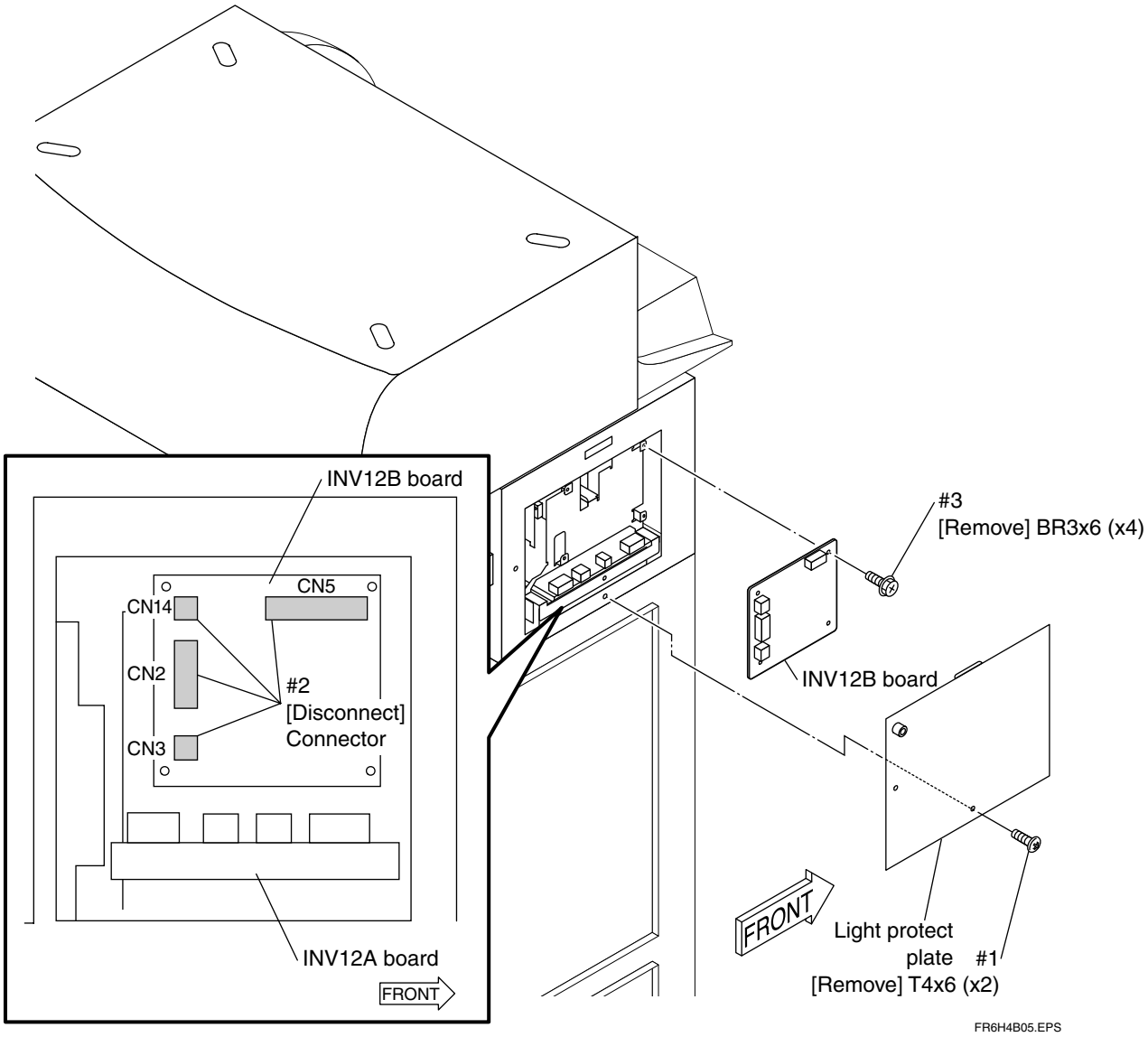
■ Removal Procedures

(1) Remove the covers.

- Front cover
- Left-hand side cover

☞ "3.1 Removing and Reinstalling the Covers"

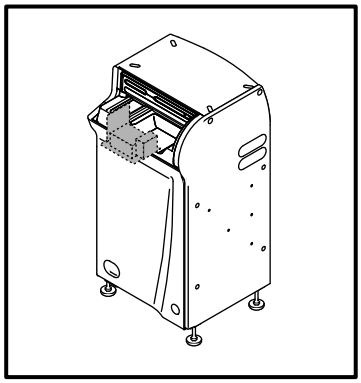
(2) Remove the INV12B Board.



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

4.2 Inverter Assembly



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CAUTION

When servicing the inverter assembly, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electric parts on the board mounted in the inverter assembly.

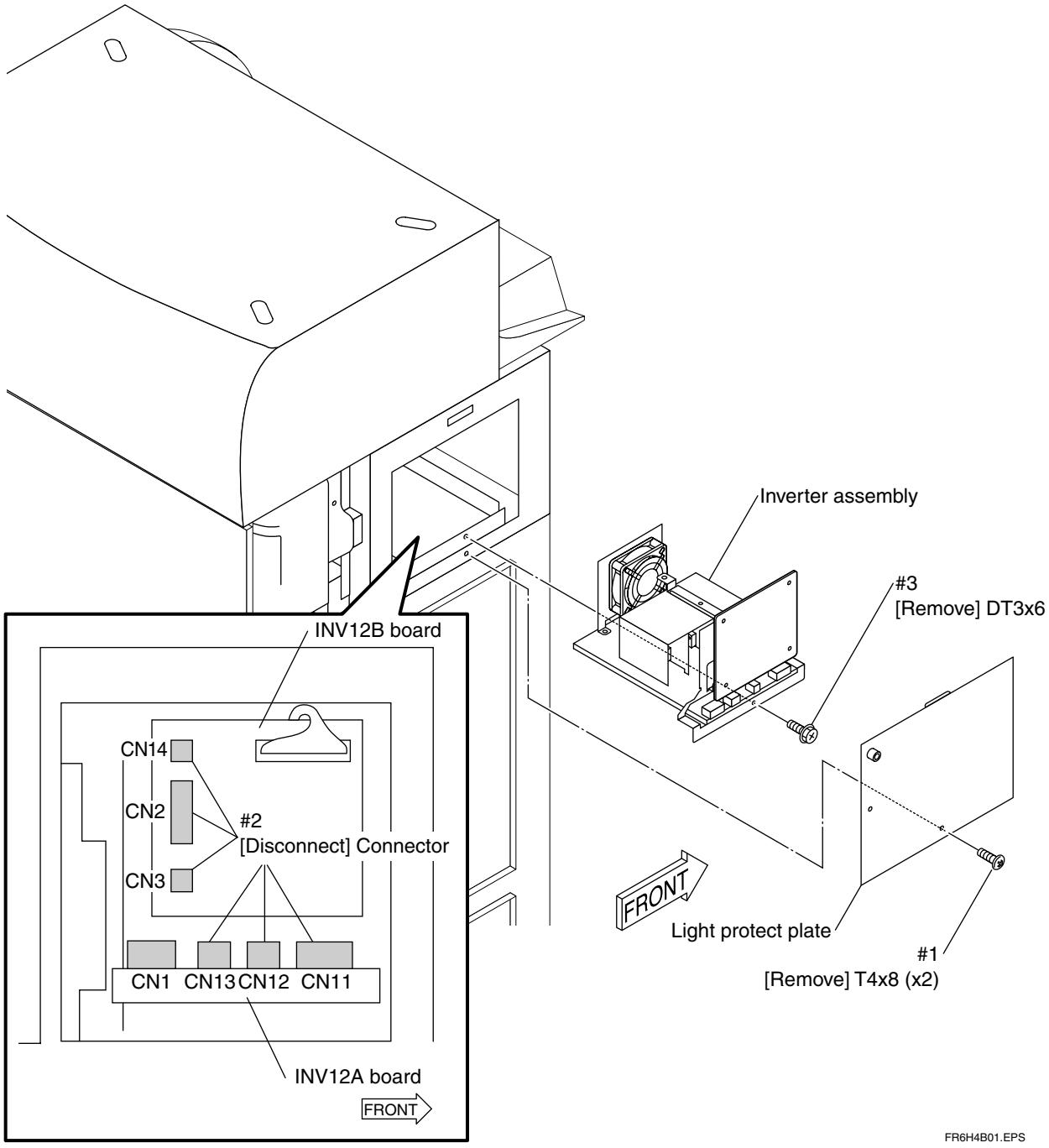
■ Removal Procedures

(1) Remove the covers.

- Front cover
- Left-hand side cover

☞ "3.1 Removing and Reinstalling the Covers"

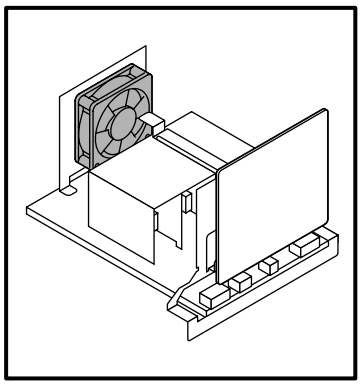
(2) Remove the inverter assembly.



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

4.3 Fan (FAN4)



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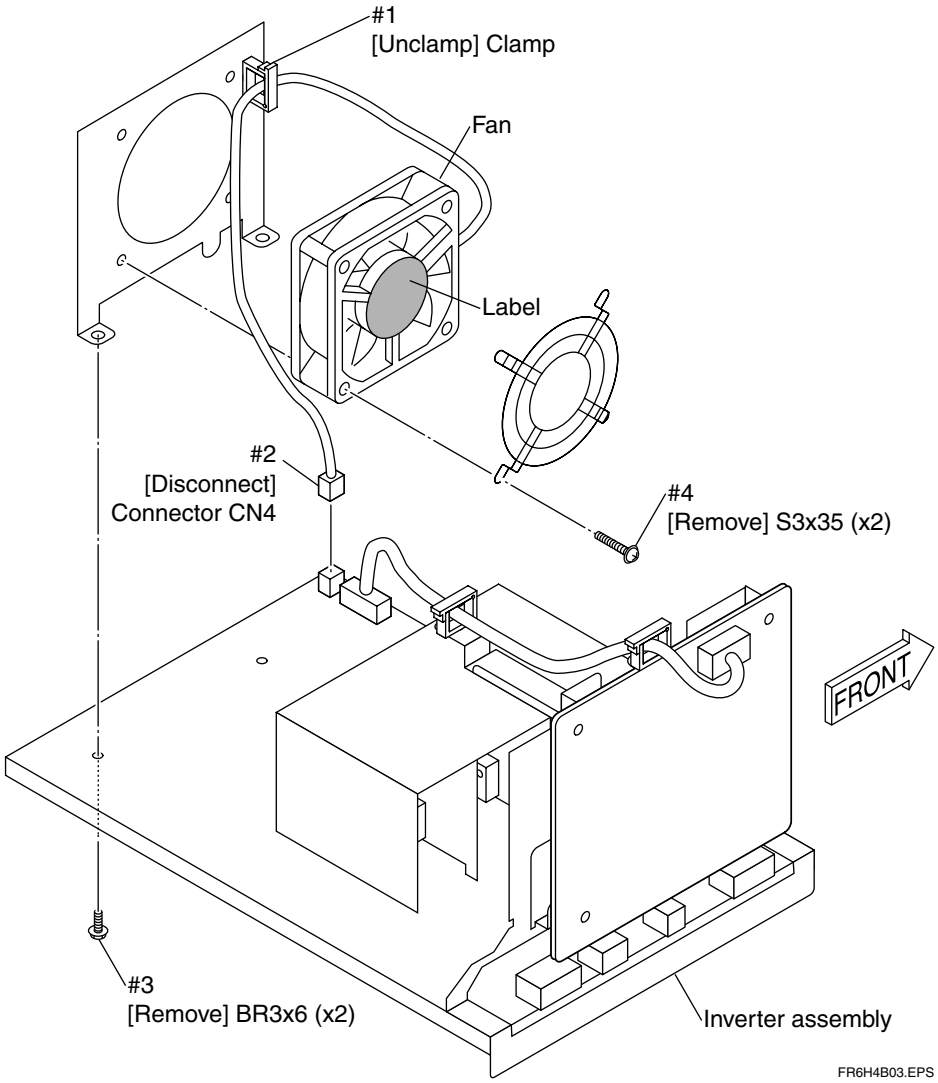
■ Removal Procedures

(1) Remove the inverter assembly.

☞ “4.2 Inverter Assembly”

(2) Remove the fan.



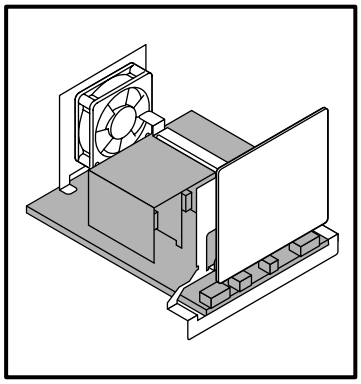
■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

When installing the fan, make sure that the label of the fan is oriented as shown in the illustration above.

For reinstallation, reverse the removal steps.

4.4 INV12A Board



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CAUTION

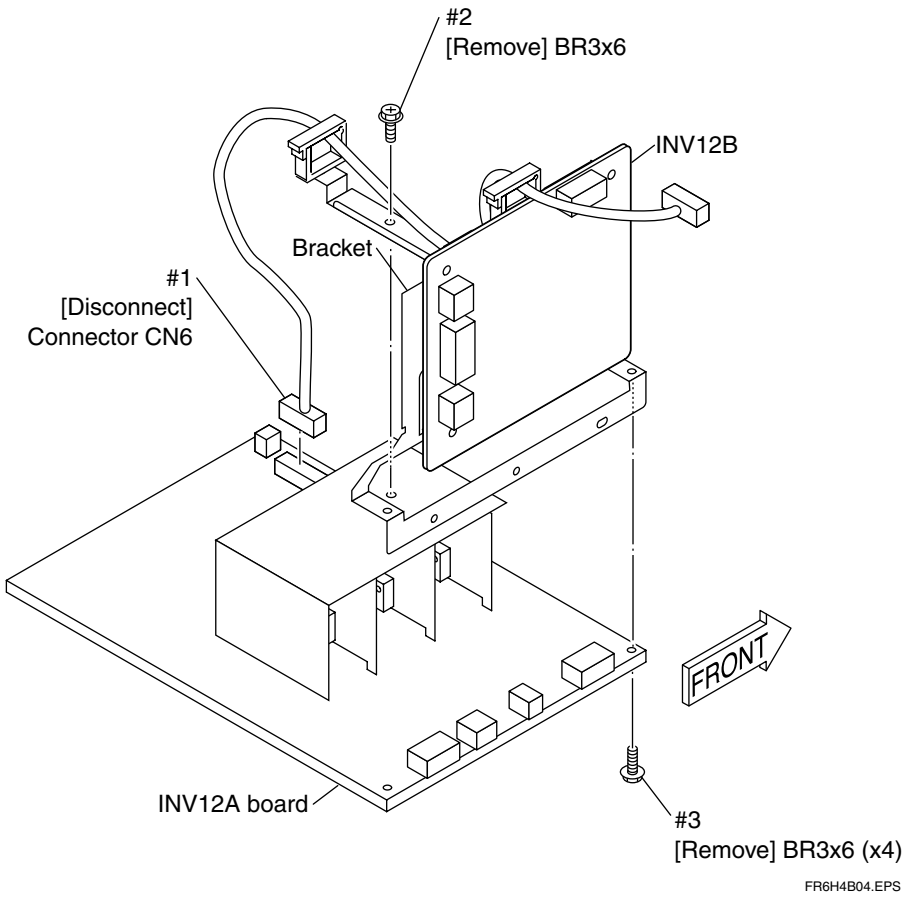
When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electric parts on the board mounted in the inverter assembly.

■ Removal Procedures

(1) Remove the fan (FAN4).

☞ “4.3 Fan (FAN4)”

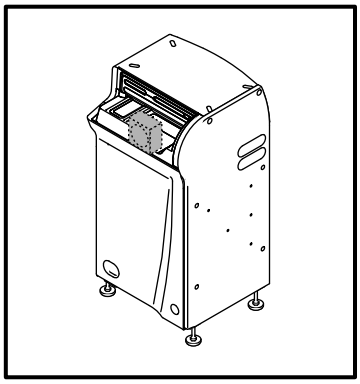
(2) Remove the INV12A board.



■ Reinstallation Procedure

For reinstallation, reverse the removal steps.

4.5 Fan (FAN3)



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■ Removal Procedures

(1) Remove the inverter assembly.

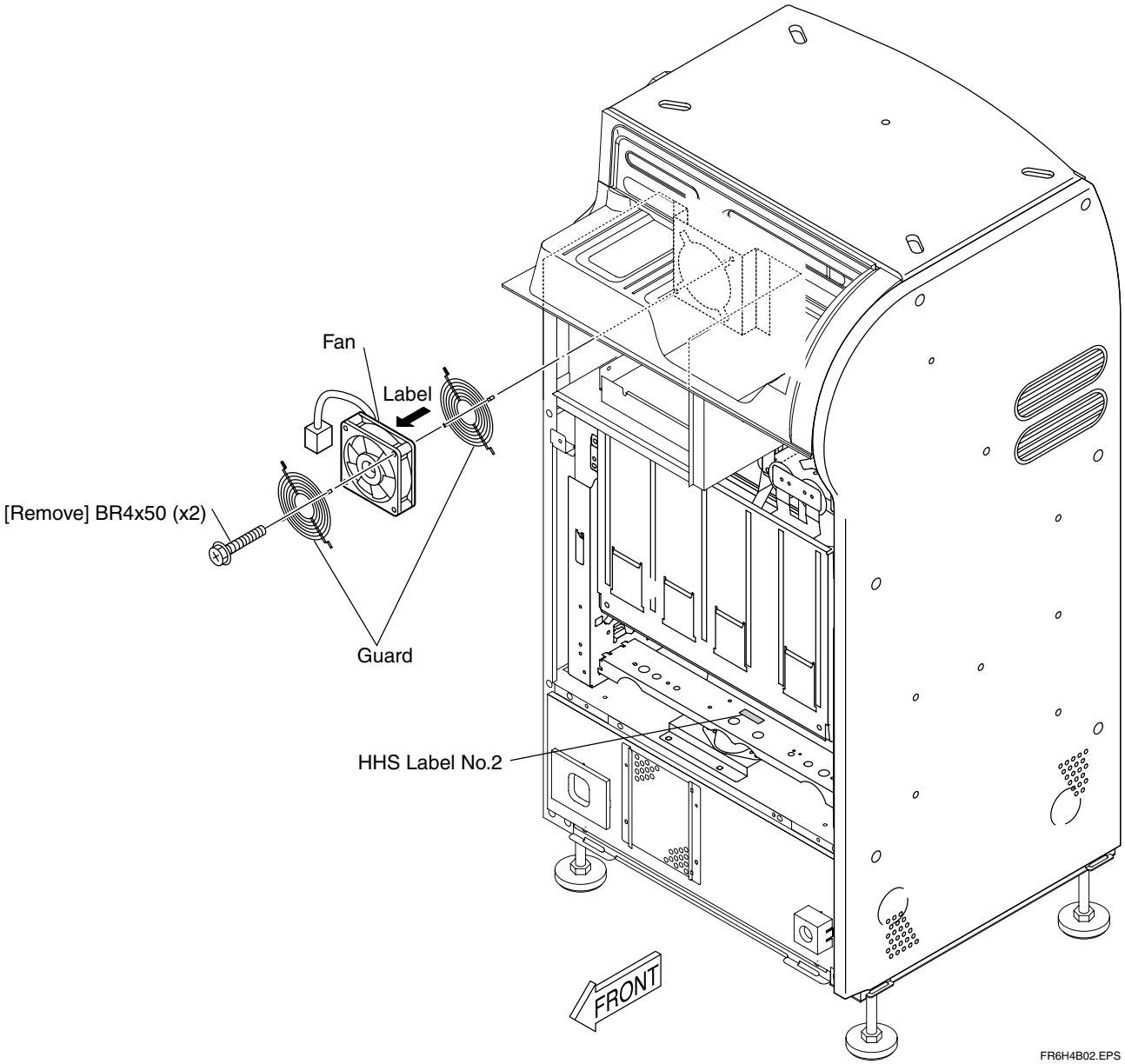
☞ “4.2 Inverter Assembly”

(2) Remove the covers.

- Front cover
- Upper light protect plate

☞ “3.1 Removing and Reinstalling the Covers”

(3) Remove the fan.



■ Reinstallation Procedures

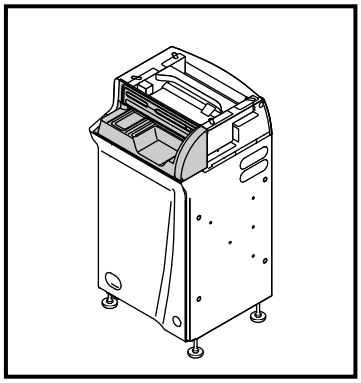
◆ *INSTRUCTION* ◆

When installing the fan, make sure that the label of the fan is oriented as shown in the illustration above.

For reinstallation, reverse the removal steps.

5. Removing and Reinstalling the Cassette Set Unit

5.1 Shelf Cover Assembly



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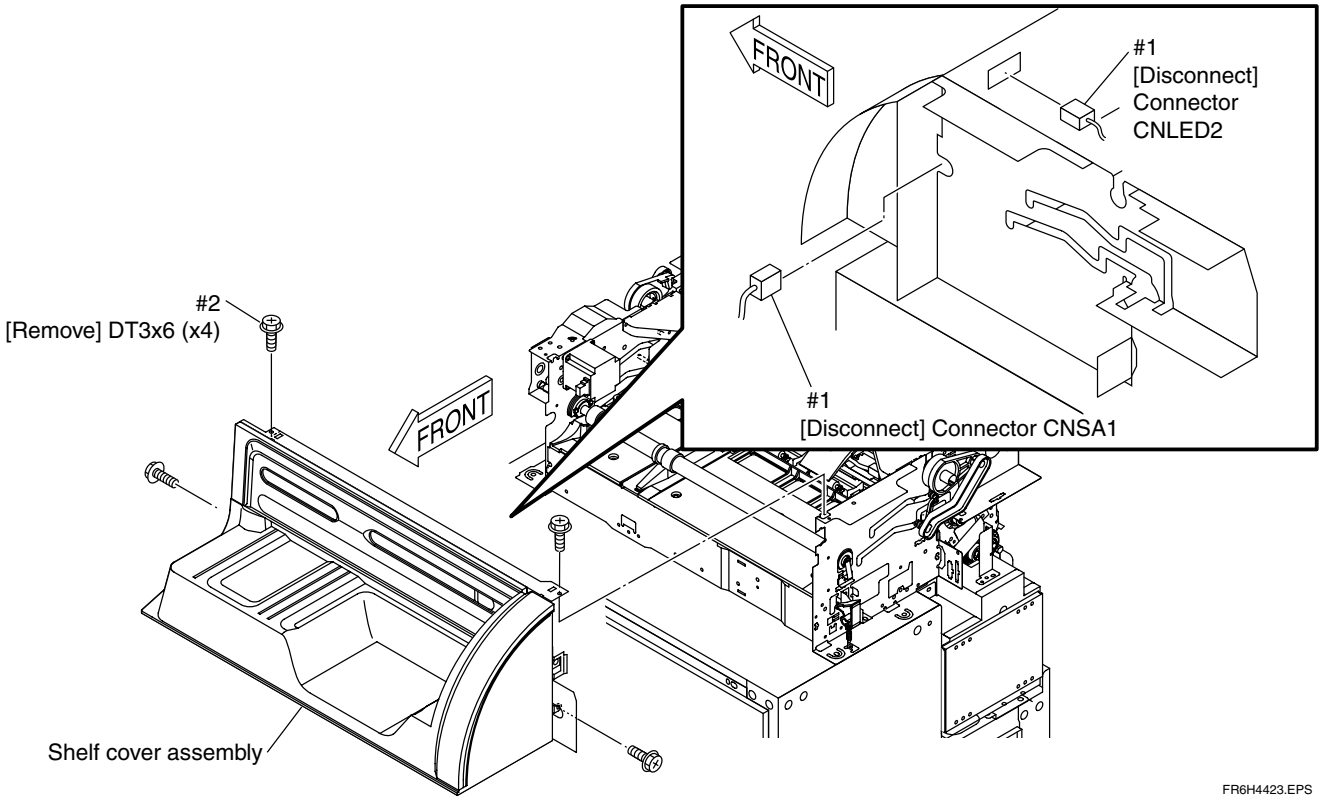
■ Removal Procedures

(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

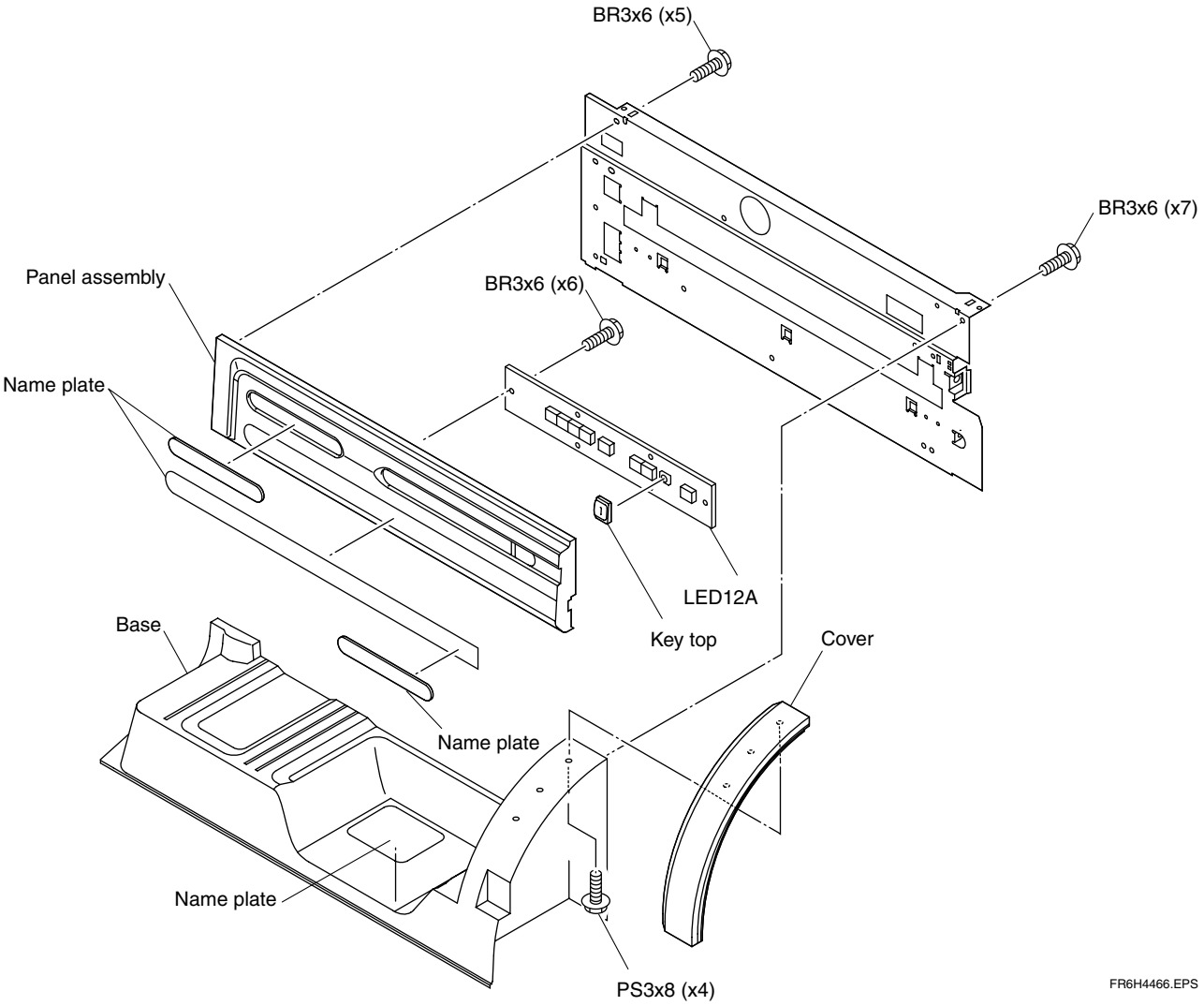
☞ “3.1 Removing and Reinstalling the Covers”

(2) Remove the shelf cover assembly.



FR6H4423.EPS

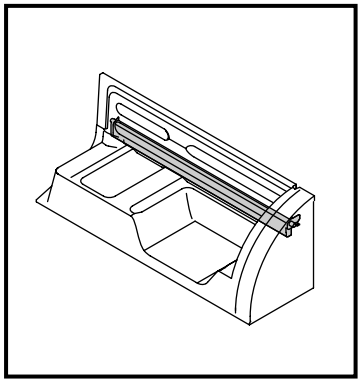
■ Exploded View



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

5.2 Shutter



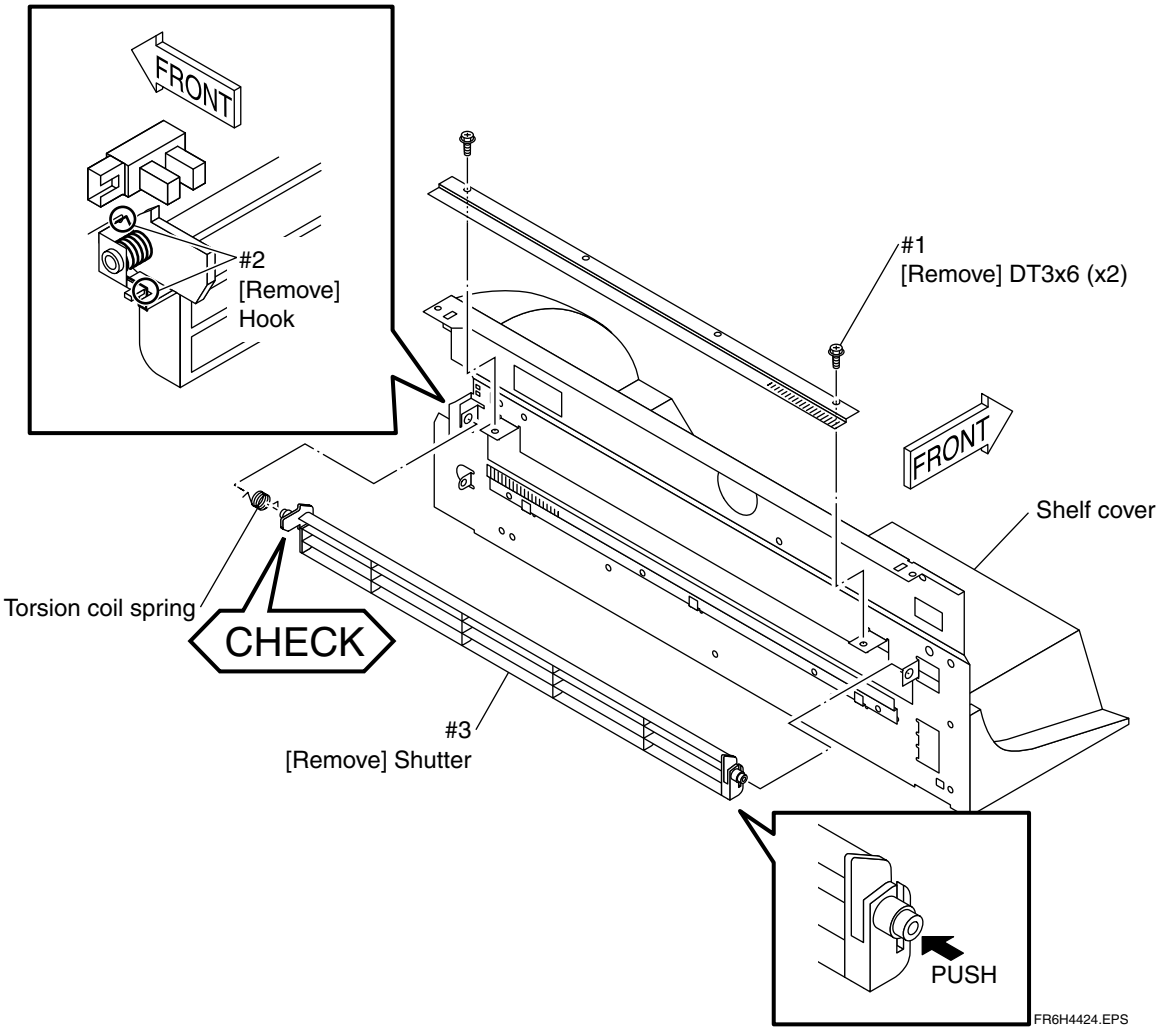
FR6H4469.EPS

■ Removal Procedures

(1) Remove the shelf cover assembly.

☞ "5.1 Shelf Cover Assembly"

(2) Remove the shutter.



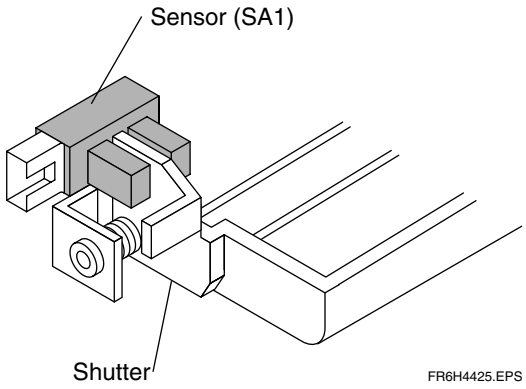
FR6H4424.EPS

■ Reinstallation Procedures

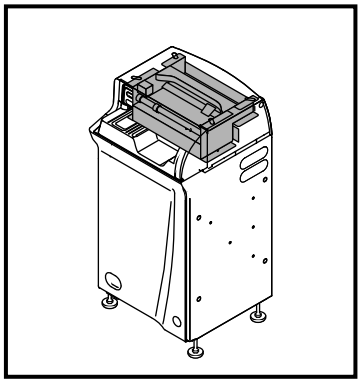
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

• Make sure that the sensor (SA1) and shutter do not interfere with each other.



5.3 Cassette Set Unit



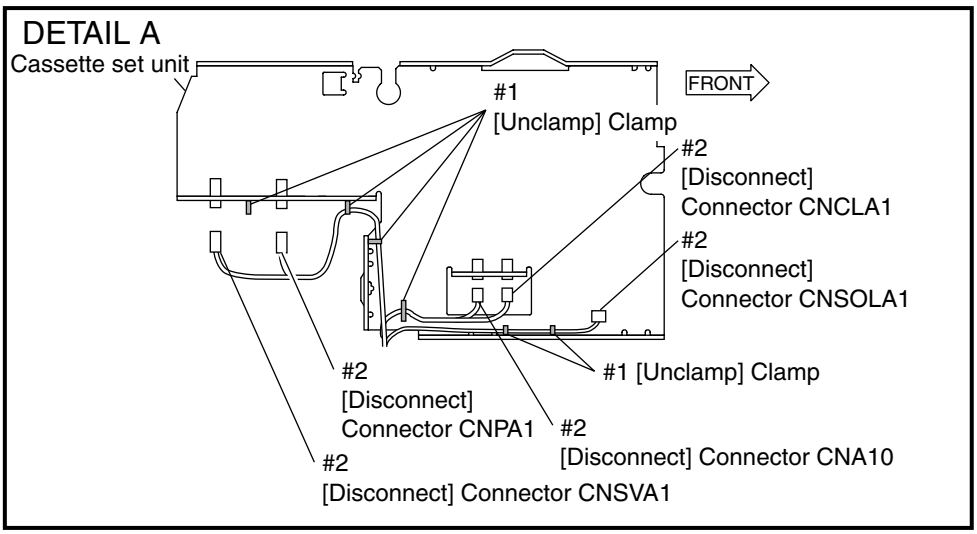
FR6H4443.EPS

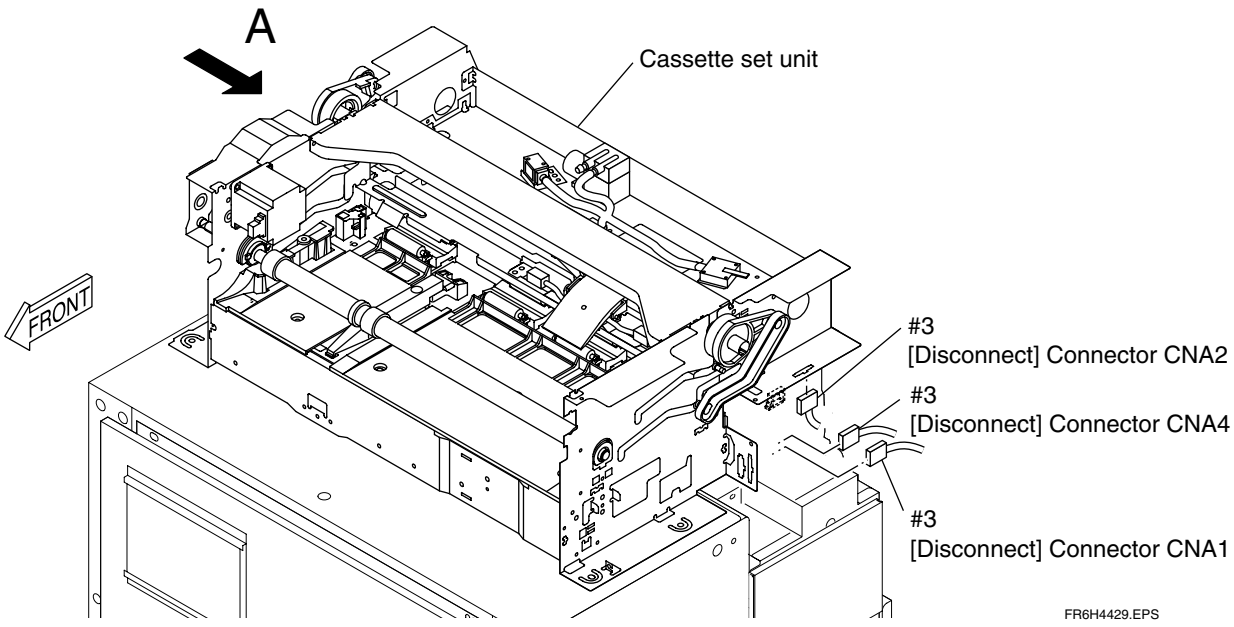
■ Removal Procedures

(1) Remove the shelf cover assembly.

☞ "5.1 Shelf Cover Assembly"

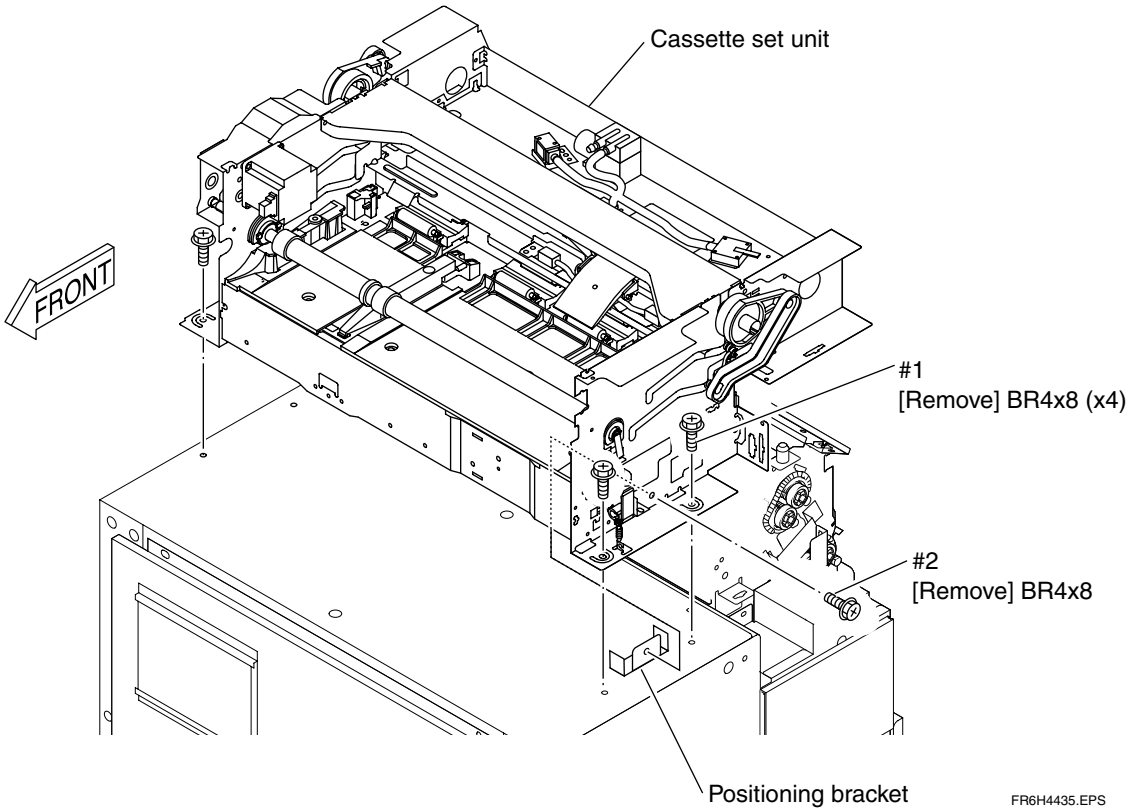
(2) Disconnect the connectors.





FR6H4429.EPS

(3) Remove the cassette set unit.



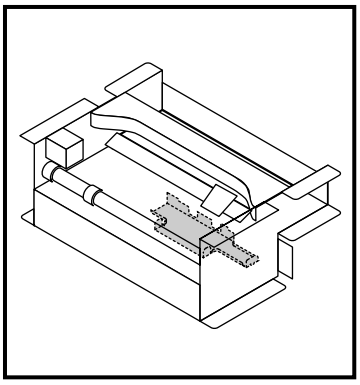
■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

When installing the cassette set unit, align the cassette set unit against the positioning bracket to position it as appropriate, and then tighten the screws in reverse order of removal.

For reinstallation, reverse the removal steps.

5.4 Wrong-Insertion Prevention Bracket Assembly



FR6H4464.EPS

■ Removal Procedures

(1) Remove the cassette set unit.

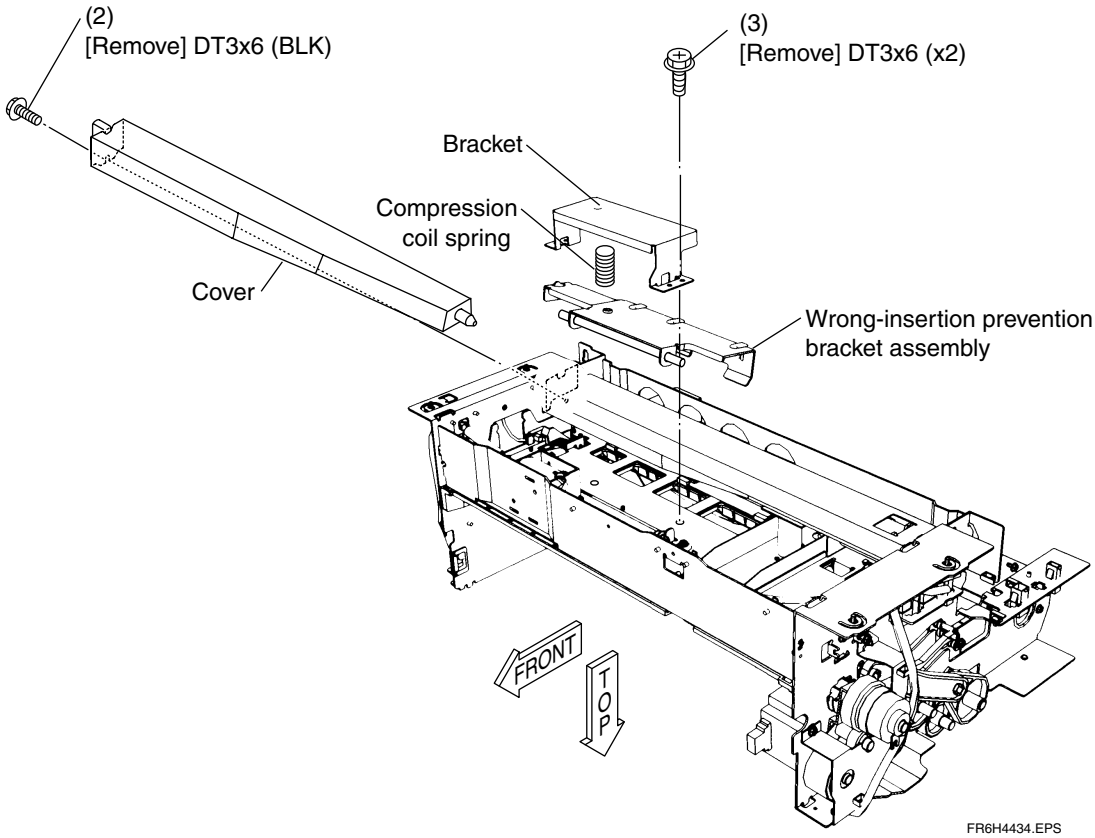
☞ "5.3 Cassette Set Unit"

◆ *INSTRUCTION* ◆

To remove the wrong-insertion prevention bracket assembly, access it from behind the cassette set unit.

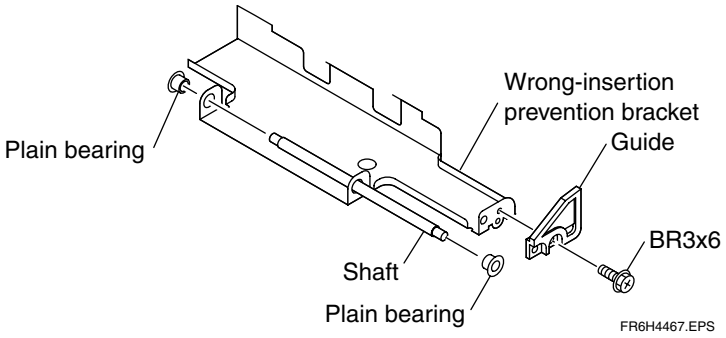
(2) Remove the cover.

(3) Remove the wrong-insertion prevention bracket assembly.



FR6H4434.EPS

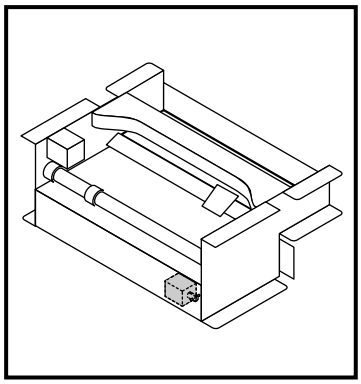
■ Exploded View



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

5.5 Solenoid (SolA1)



FR6H4462.EPS

■ Removal Procedures

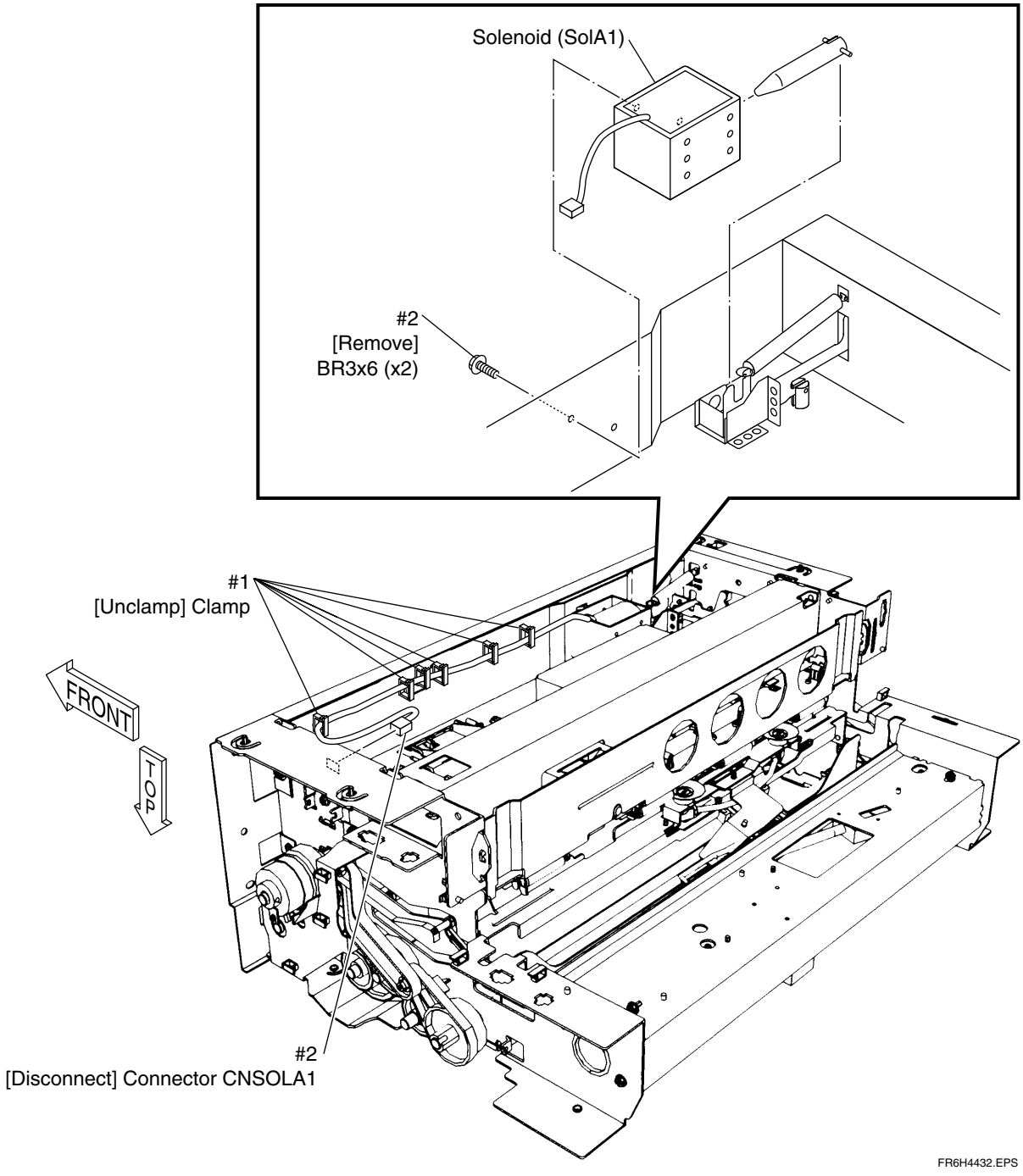
(1) Remove the cassette set unit.

☞ "5.3 Cassette Set Unit"

◆ ***NOTE*** ◆

To remove the solenoid (SolA1), access it from behind the cassette set unit.

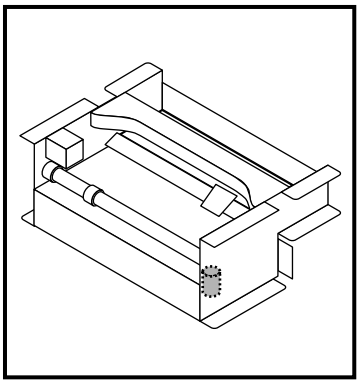
(2) Remove the solenoid (SolA1).



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

5.6 Hold Pin



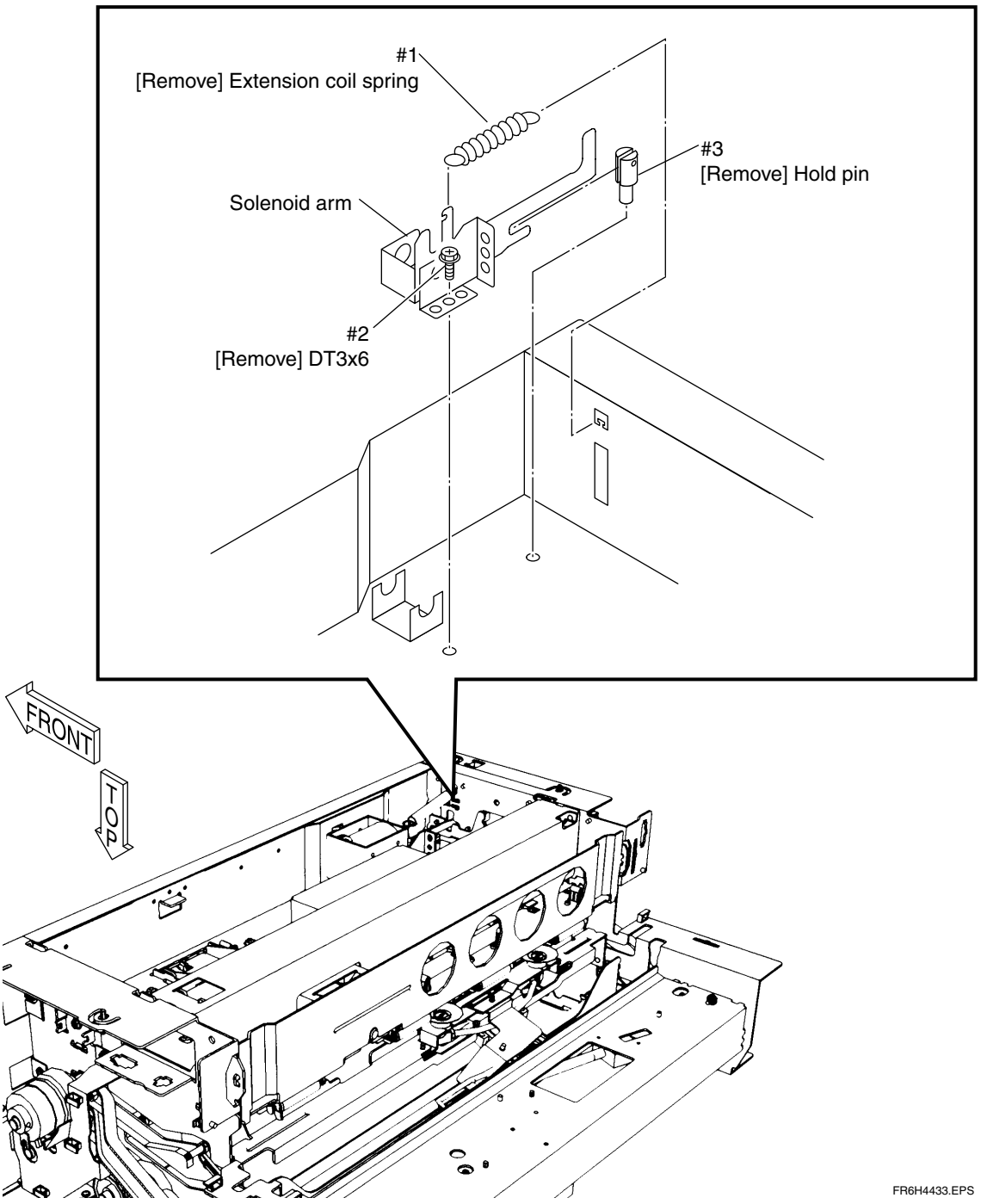
FR6H4463.EPS

■ Removal Procedures

(1) Remove the solenoid (SolA1).

☞ “5.5 Solenoid (SolA1)”

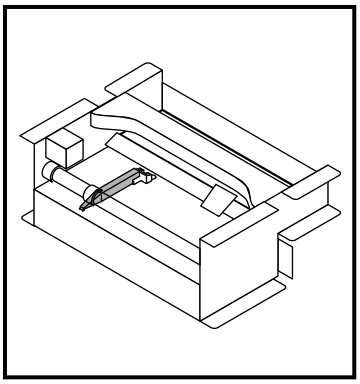
(2) Remove the hold pin.



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

5.7 Inch/Metric Changeover Guide



FR6H4455.EPS

■ Removal Procedures

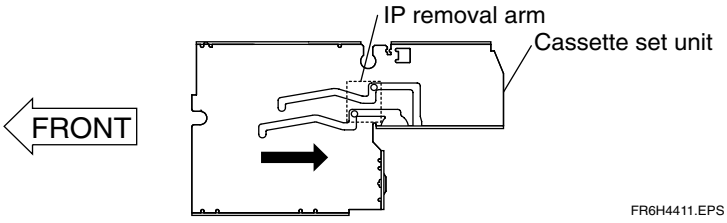
(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

☞ "3.1 Removing and Reinstalling the Covers"

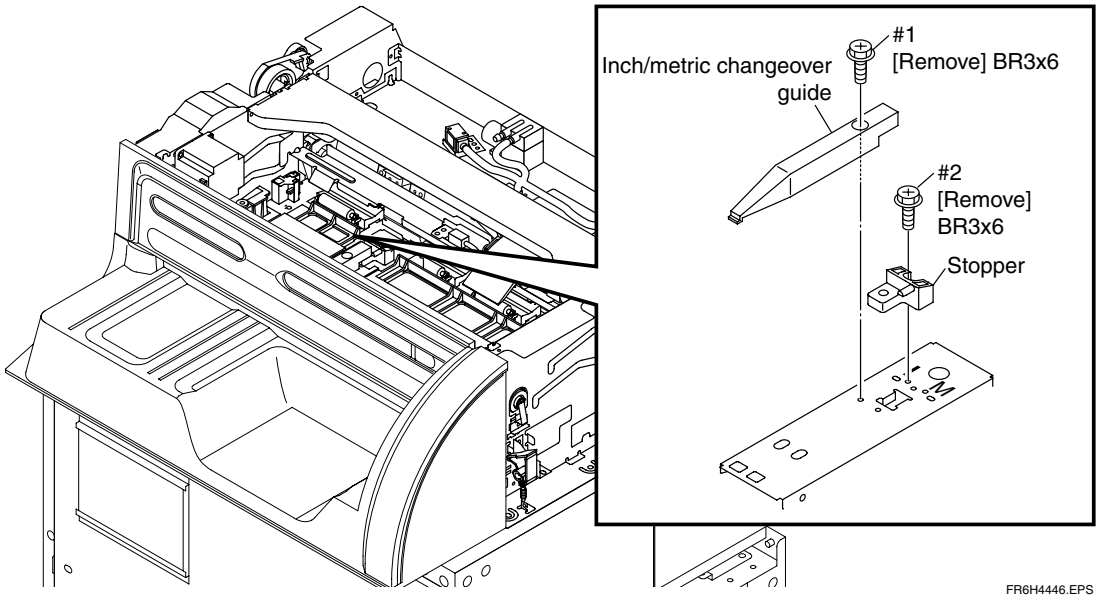
◆ ***NOTE*** ◆

Move the IP removal arm to its home position before performing the procedures.



FR6H4411.EPS

(2) Remove the inch/metric changeover guide.

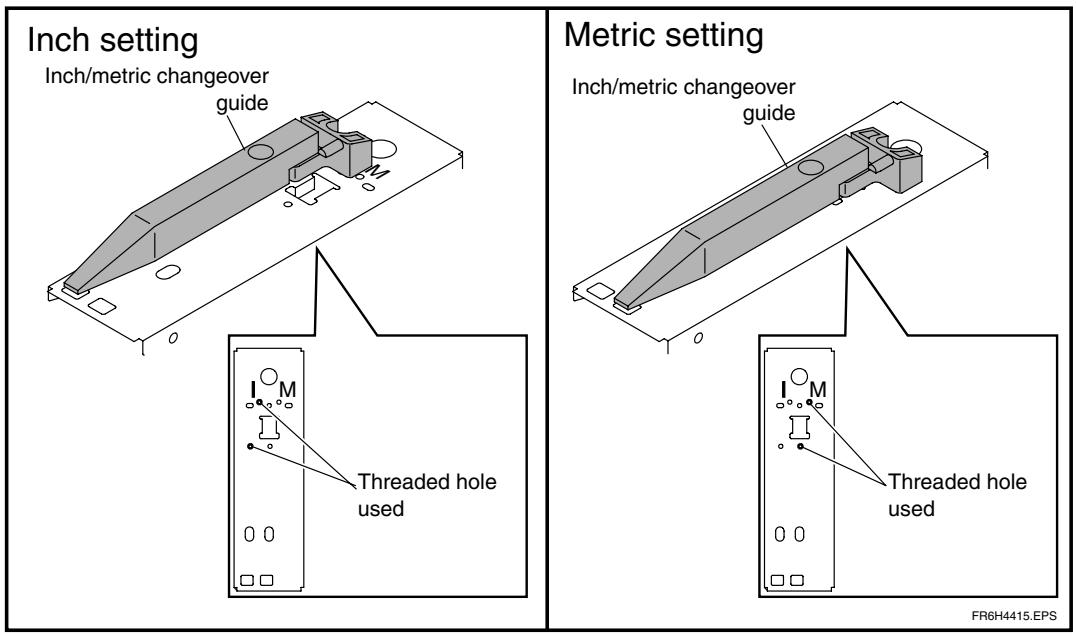


FR6H4446.EPS

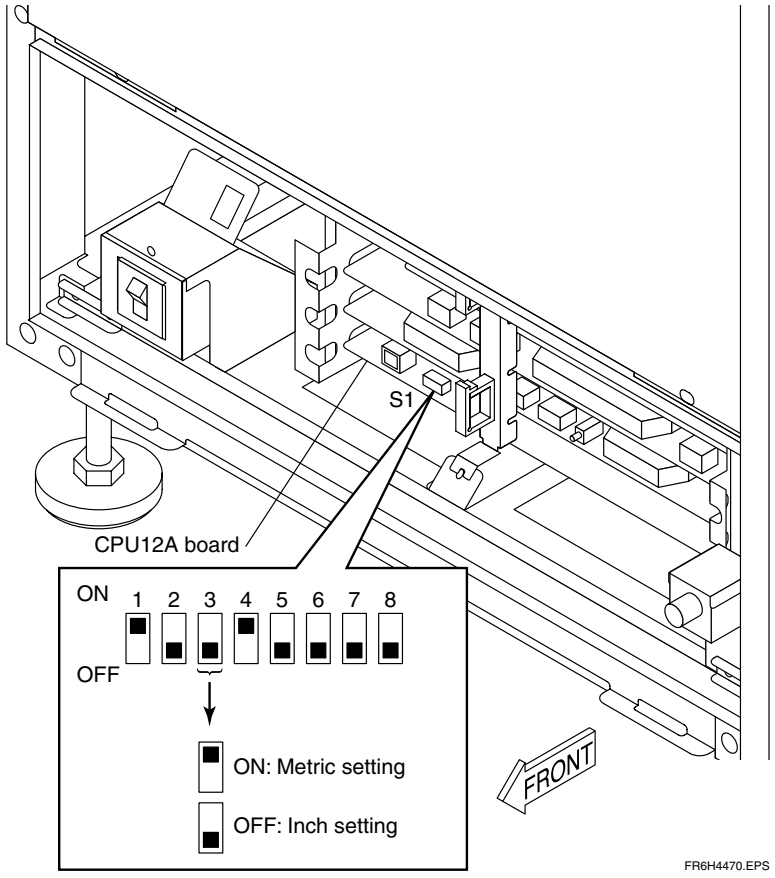
■ Reinstallation Procedures

◆ *INSTRUCTIONS* ◆

- *The changeover guide mounting location differs depending on whether the inch or metric setting is used. Install the inch/metric changeover guide as instructed in the illustration below according to the setting selected.*

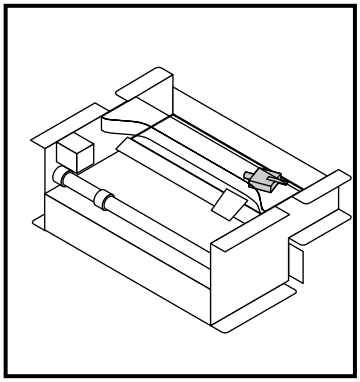


- *Set the DIP switches on the CPU12A board as appropriate.*



For reinstallation, reverse the removal steps.

5.8 Suction Sensor (SA5)



FR6H4465.EPS

■ Removal Procedures

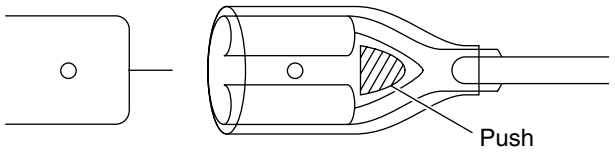
(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

☞ “3.1 Removing and Reinstalling the Covers”

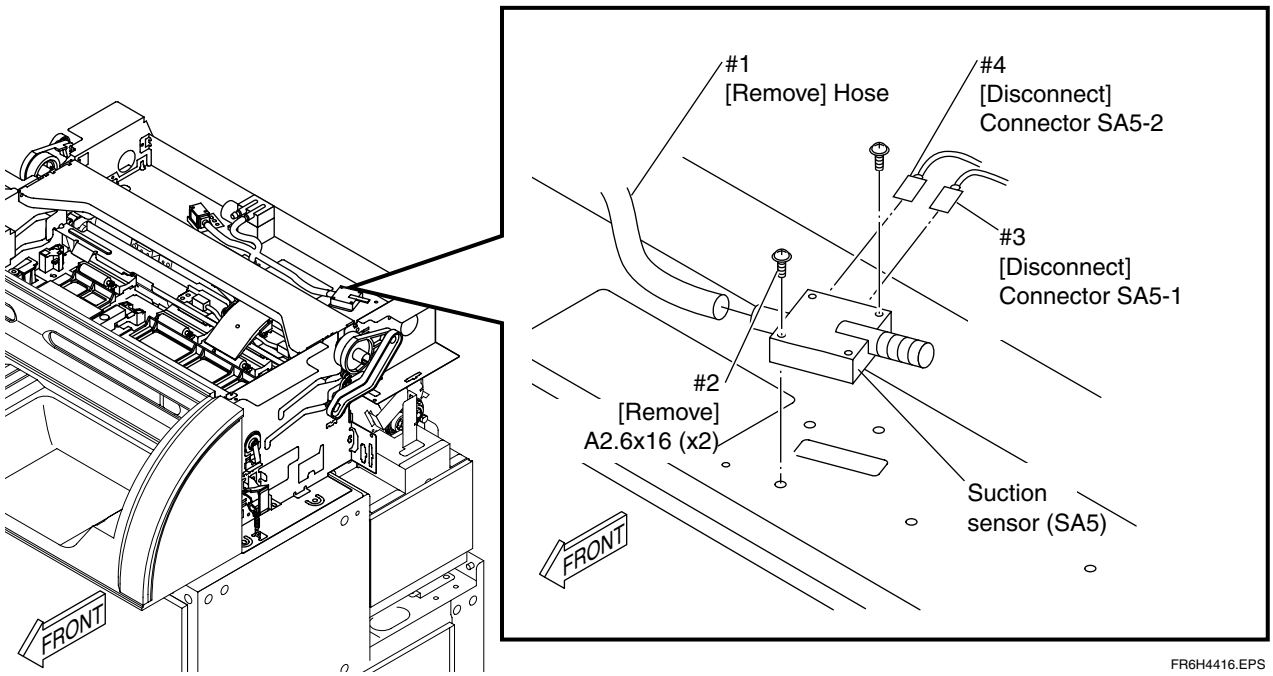
◆ ***NOTE*** ◆

To remove the FASTON terminal, push the shaded portion of the terminal illustrated below to detach it.



FR6H0001.EPS

(2) Remove the suction sensor (SA5).



FR6H4416.EPS

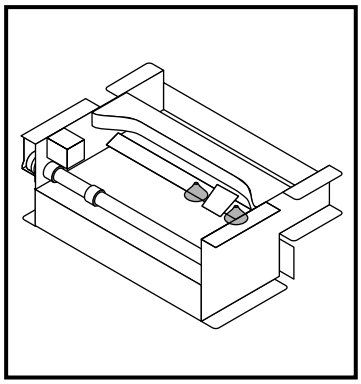
■ Reinstallation Procedures

◆ ***NOTE*** ◆

To attach the FASTON terminal, insert it all the way to secure it in place.

For reinstallation, reverse the removal steps.

5.9 Suction Cup



FR6H4453.EPS

■ Removal Procedures

(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

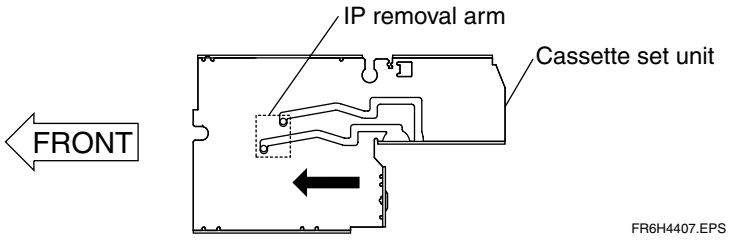
☞ "3.1 Removing and Reinstalling the Covers"

◆ *INSTRUCTION* ◆

When installing or removing the suction cup assembly, perform the procedures while supporting the IP removal arm by hand.
If you try to perform the procedures without supporting the IP removal arm, the IP removal arm may be bent.

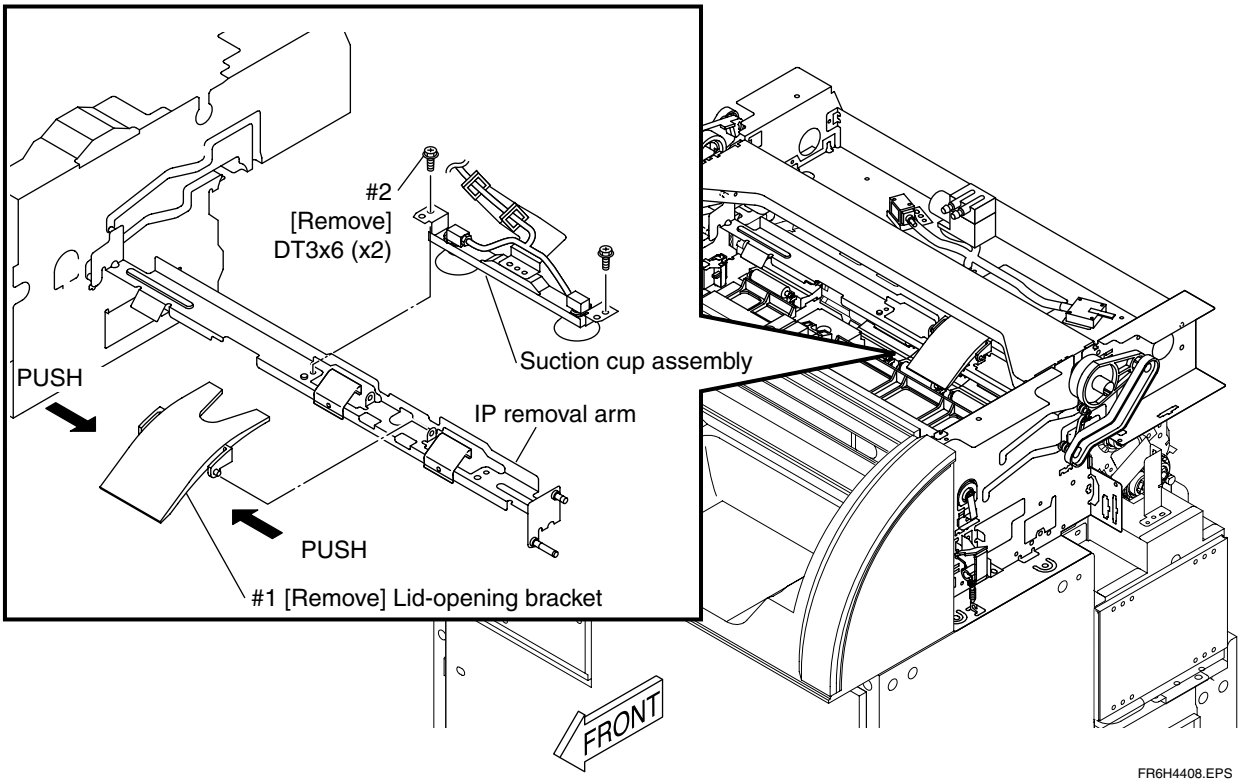
◆ *NOTE* ◆

Move the IP removal arm to its IP suction position before performing the procedures.



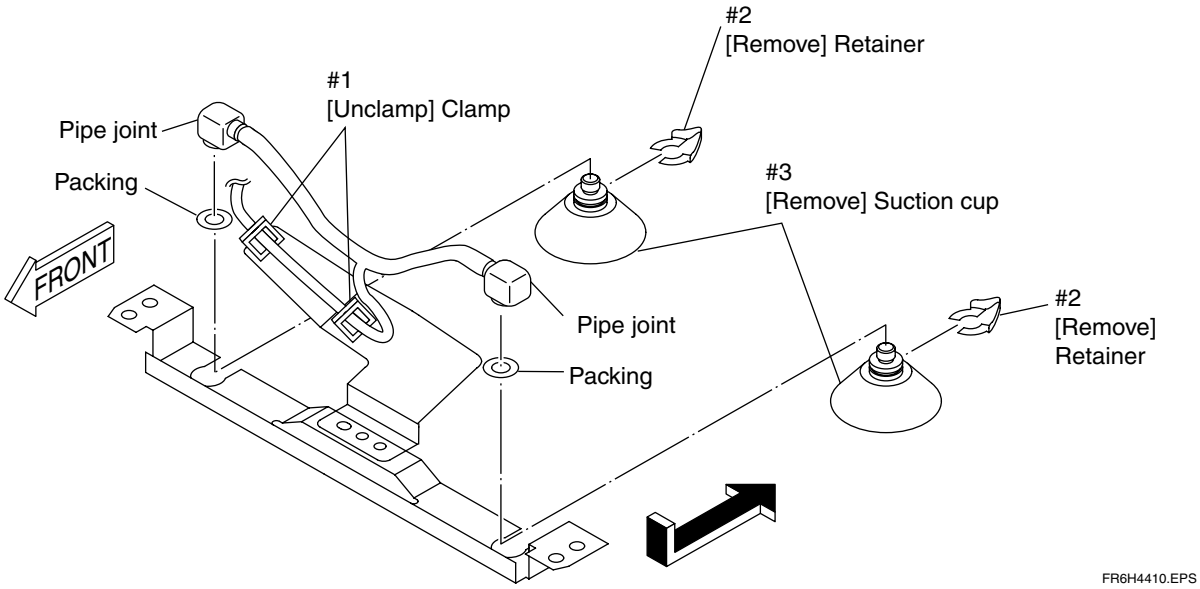
FR6H4407.EPS

(2) Remove the suction cup assembly.



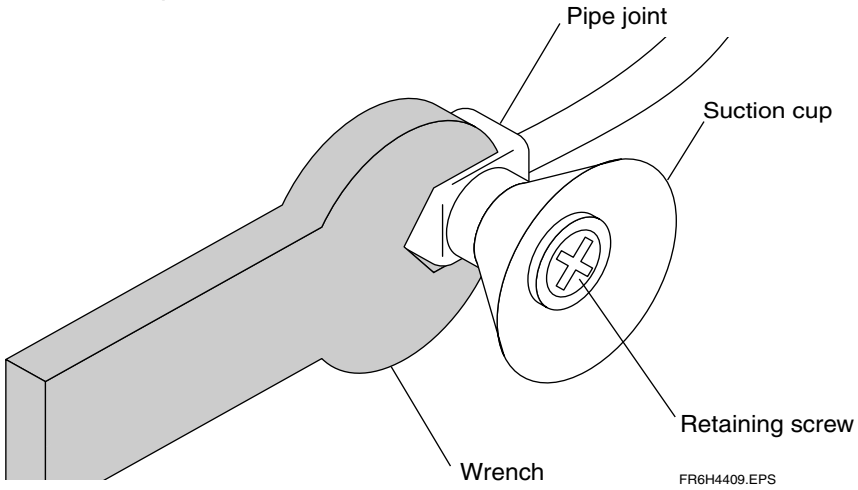
FR6H4408.EPS

(3) Remove the suction cup.



◆ ***NOTE*** ◆

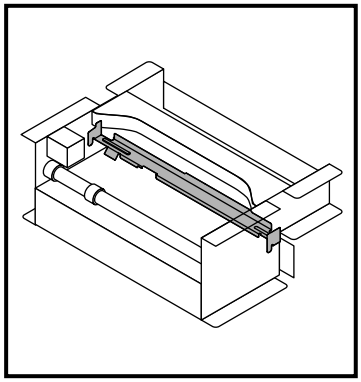
While keeping the pipe joint in place by use of a wrench or the like, remove the suction cup with a Phillips screwdriver.



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

5.10 IP Removal Arm



FR6H4454.EPS

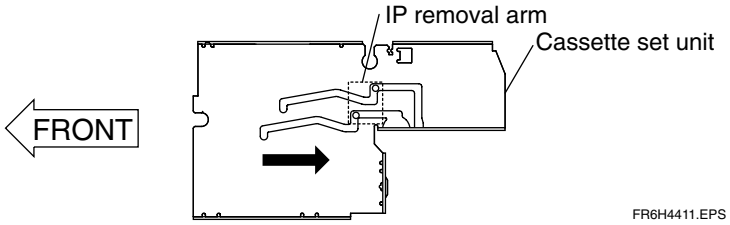
■ Removal Procedures

(1) Remove the suction cup assembly.

☞ “5.9 Suction Cup”

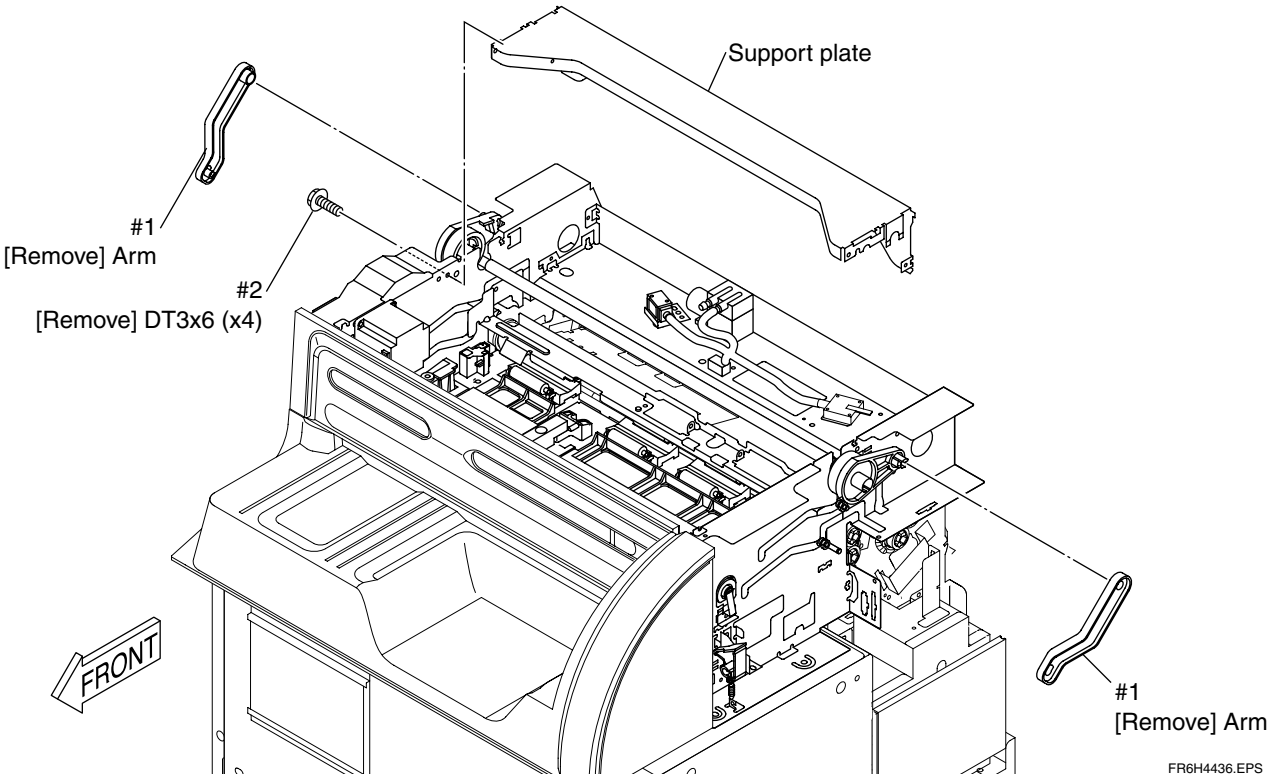
◆ ***NOTE*** ◆

Move the IP removal arm to its home position before performing the procedures.

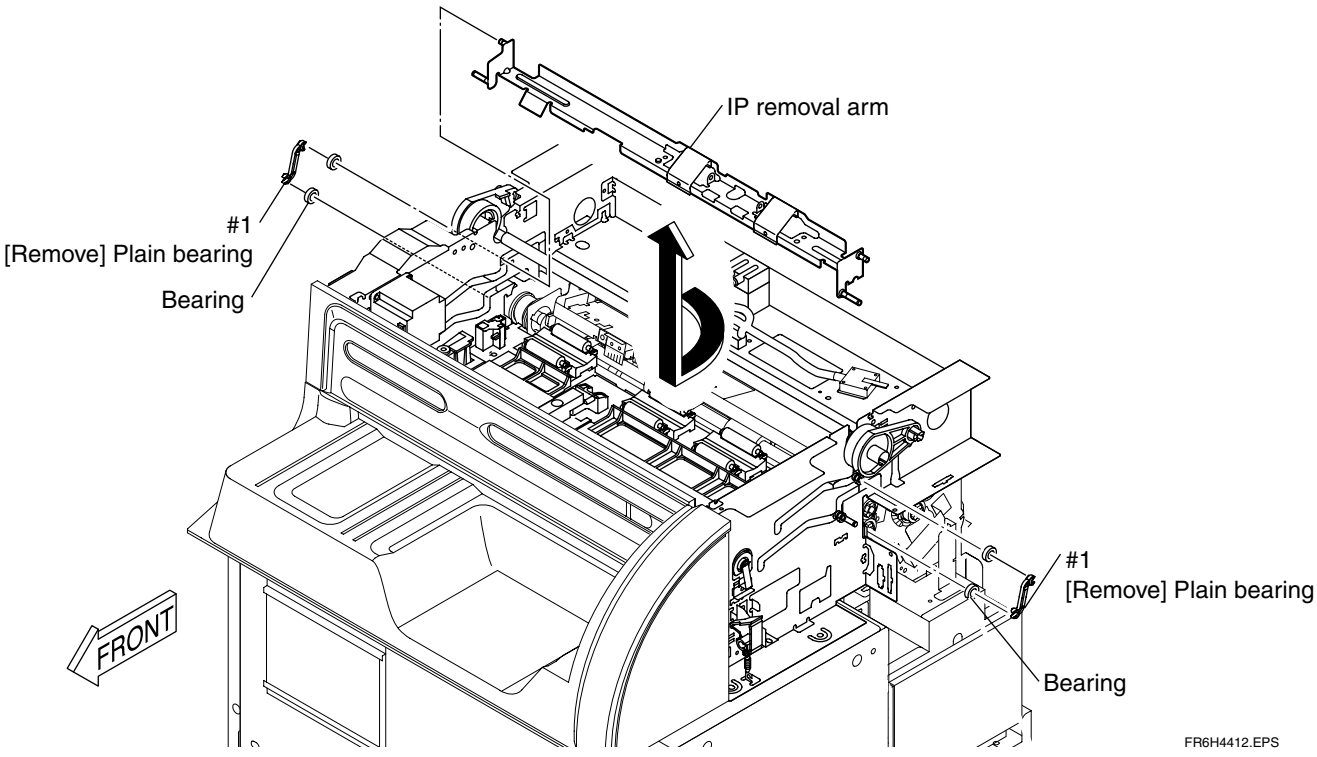


FR6H4411.EPS

(2) Remove the support plate.



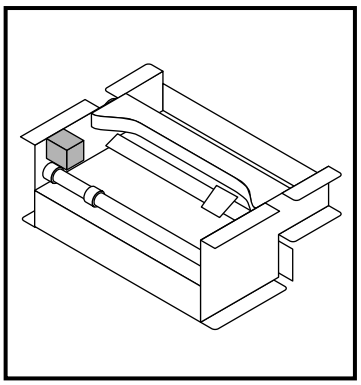
(3) Remove the IP removal arm.



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

5.11 Motor (MA1)



FR6H4451.EPS

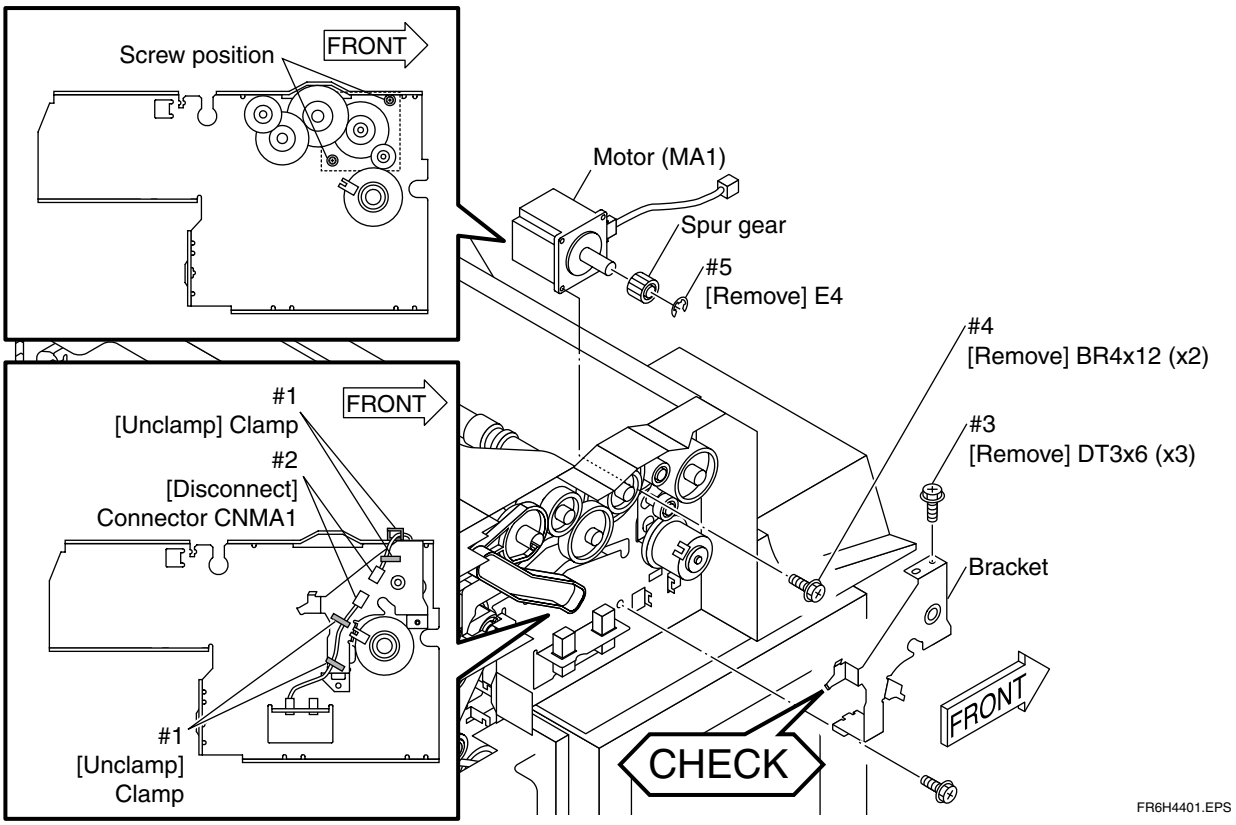
■ Removal Procedures

(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the motor (MA1).

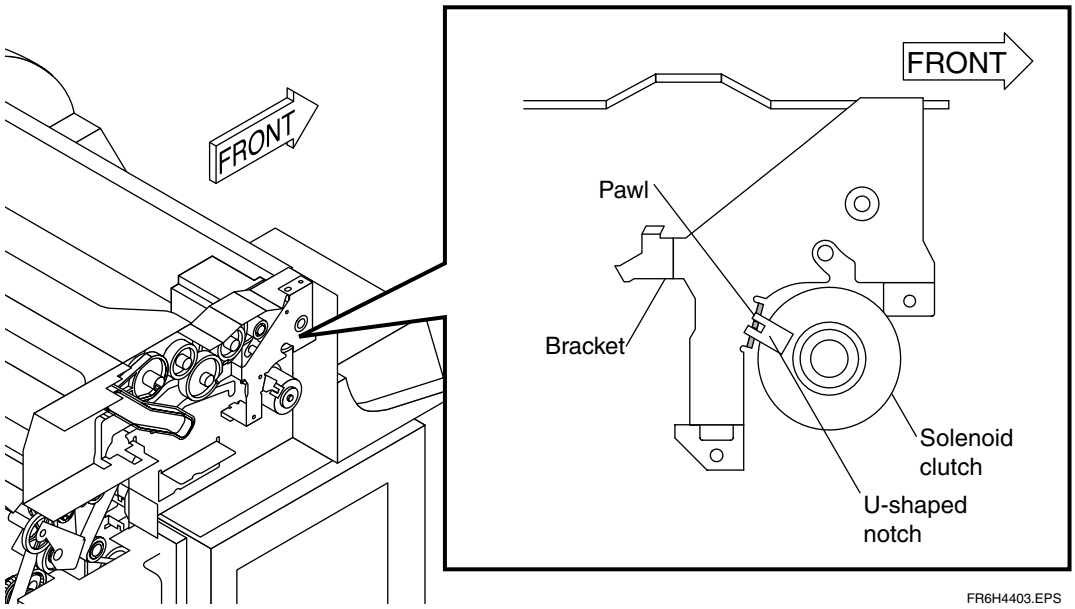


FR6H4401.EPS

■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

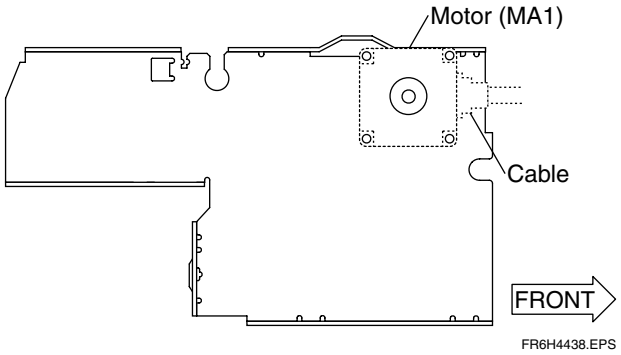
When attaching the bracket, make sure that the pawl of the bracket is engaged into the U-shaped notch of the solenoid clutch.



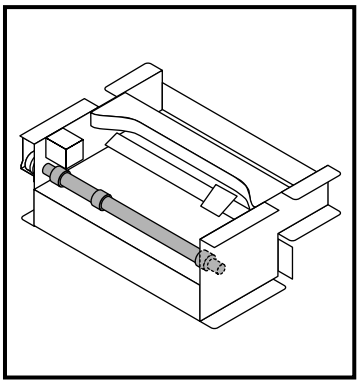
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

- Make sure that the pawl of the bracket is engaged into the U-shaped notch of the solenoid clutch.
- Make sure that the motor (MA1) is installed in its correct orientation.



5.12 Roller



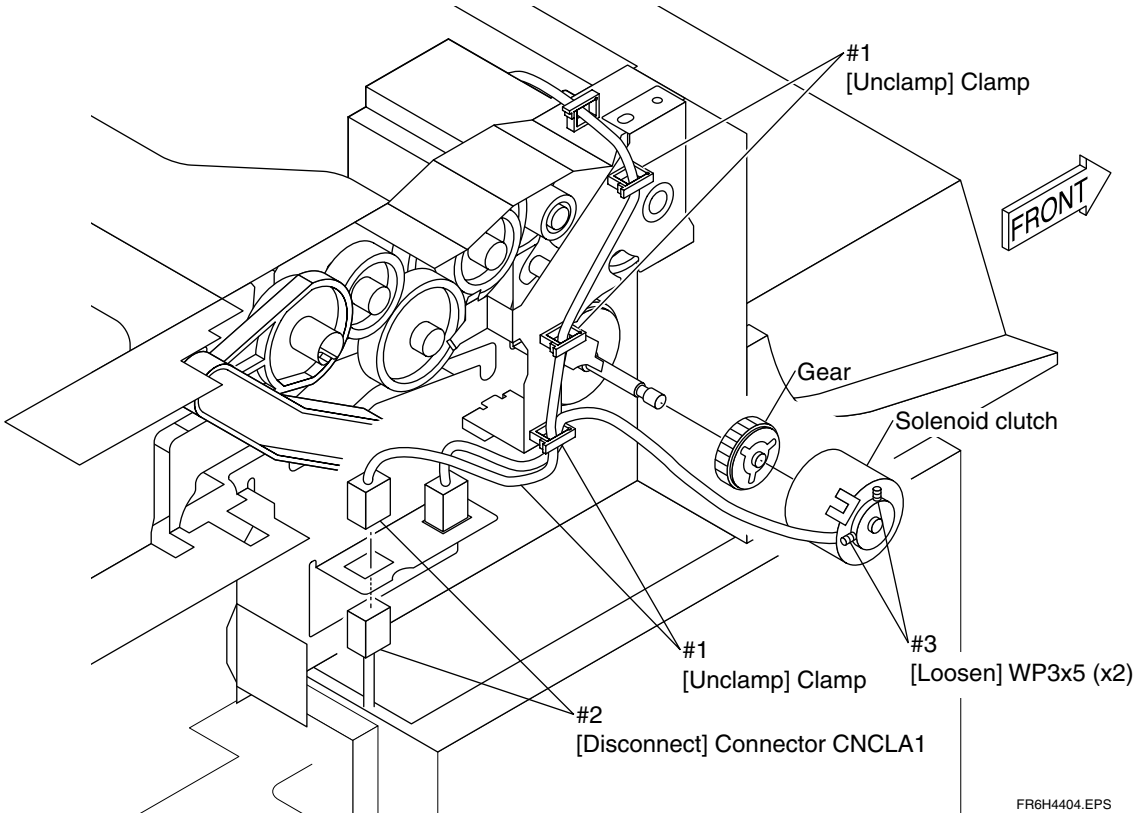
FR6H4452.EPS

■ Removal Procedures

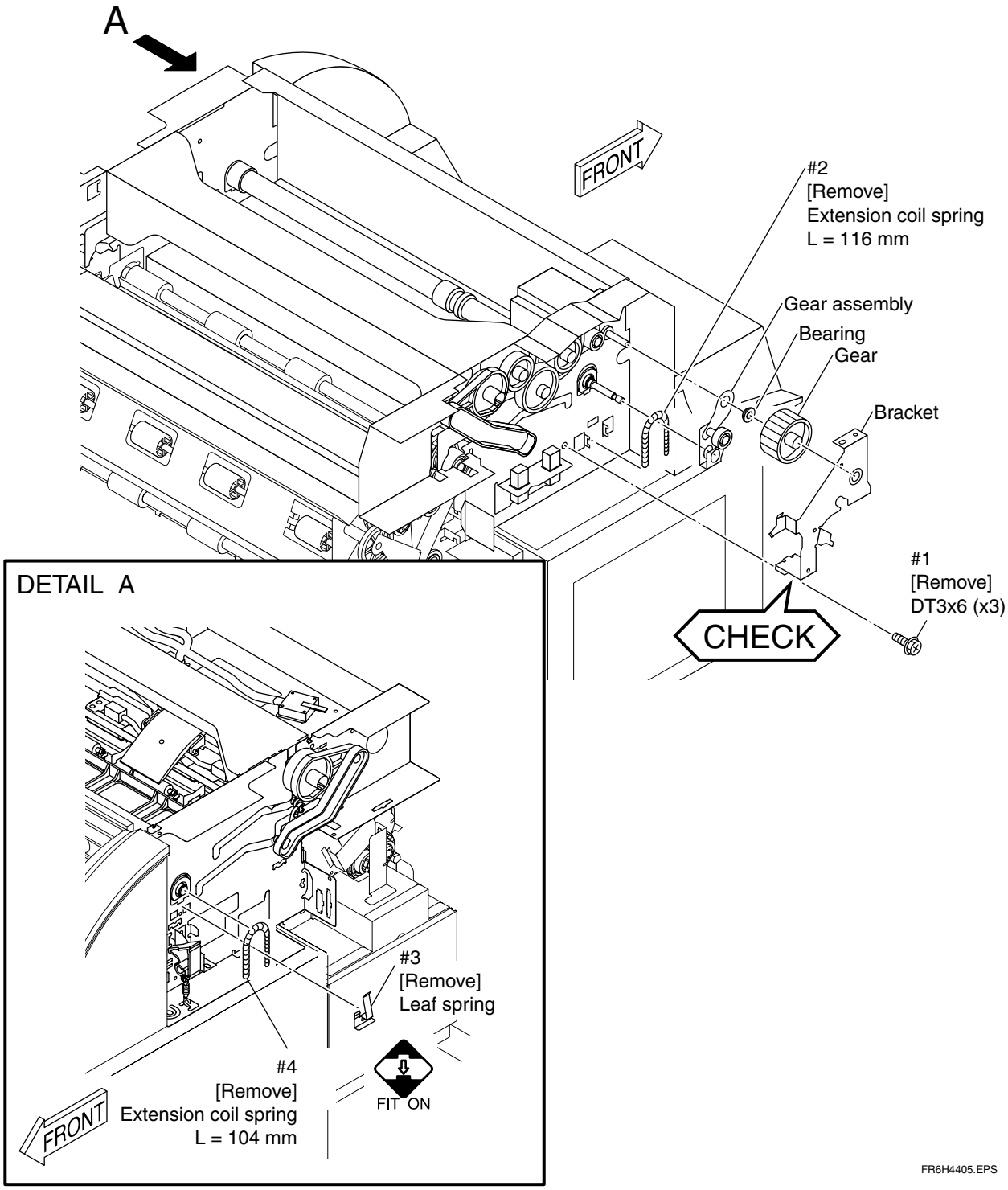
(1) Remove the covers.
- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the solenoid clutch.



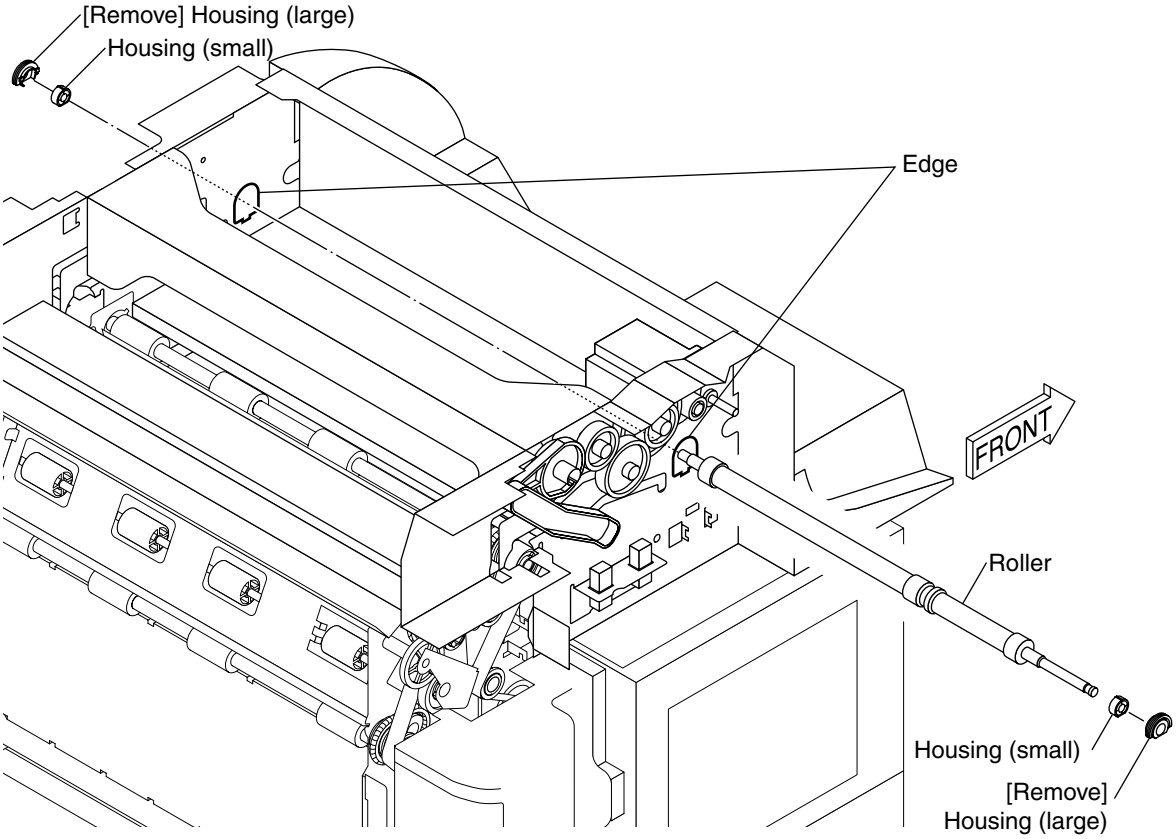
(3) Remove the bracket.



◆ ***INSTRUCTION*** ◆

When removing the roller, make sure that the edges of the side plates do not interfere with the roller.

(4) Remove the roller.



FR6H4406.EPS

■ Reinstallation Procedures

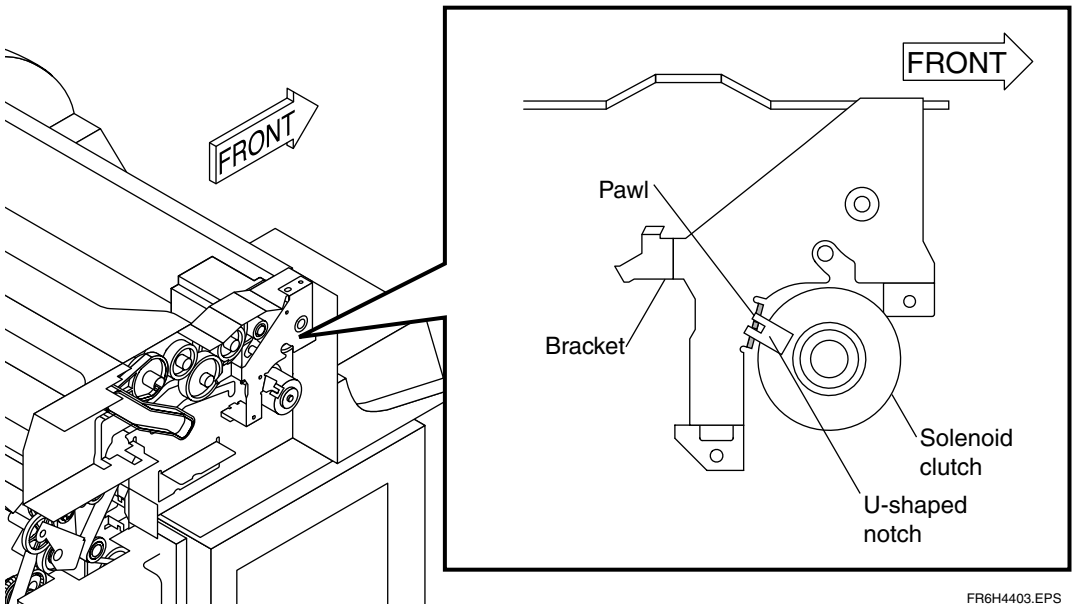
◆ *INSTRUCTION* ◆

The extension coil springs differ in size depending on where they are attached. Use care not to confuse their locations..

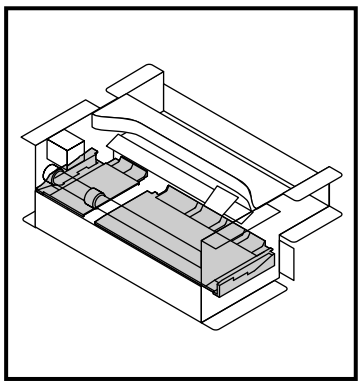
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

- Make sure that the pawl of the bracket is engaged into the U-shaped notch of the solenoid clutch.



5.13 Guide Plate



FR6H4459.EPS

■ Removal Procedures

◇ ***REFERENCE*** ◇

When only the guide plate (large) is to be removed, the motor (MA1) need not be removed.

(1) Remove the shelf cover assembly.

☞ "5.1 Shelf Cover Assembly"

(2) Remove the motor (MA1).

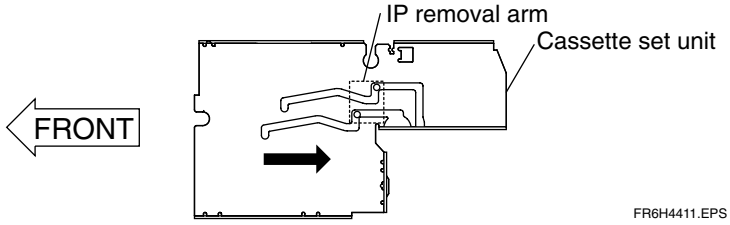
☞ "5.11 Motor (MA1)"

(3) Remove the roller.

☞ "5.12 Roller"

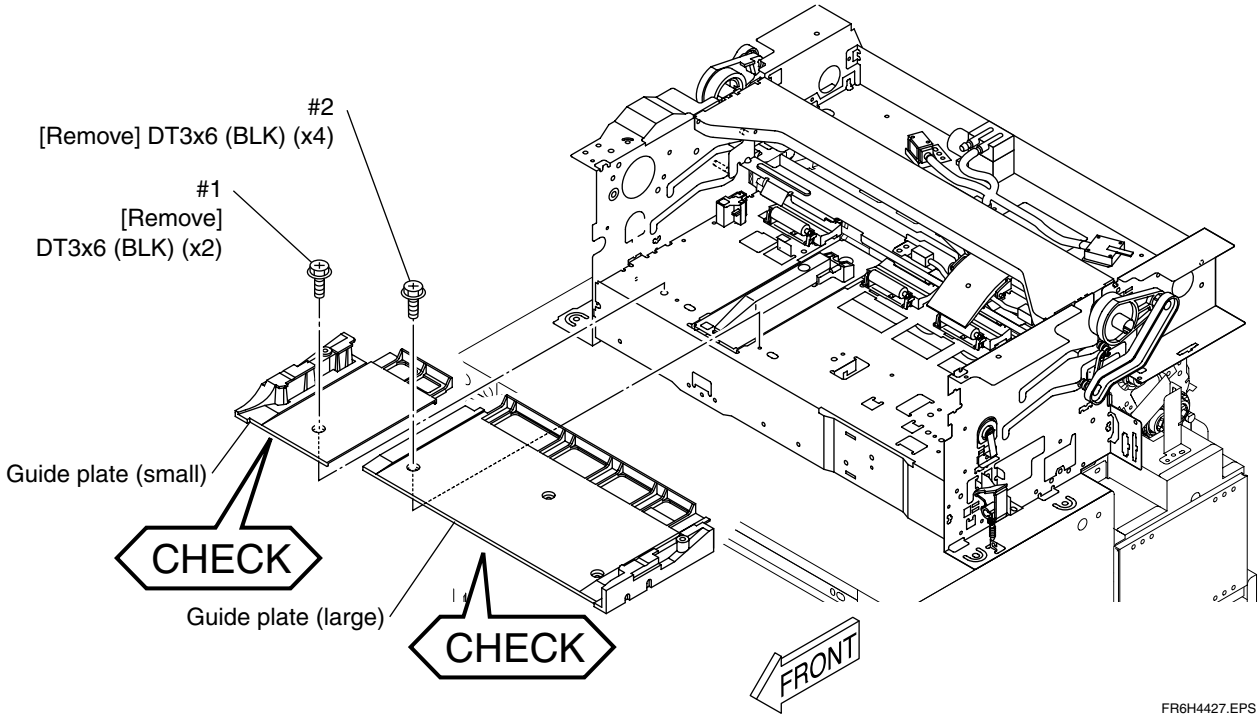
◆ ***NOTE*** ◆

Move the IP removal arm to its home position before performing the procedures.



FR6H4411.EPS

(4) Remove the guide plate (large) and guide plate (small).

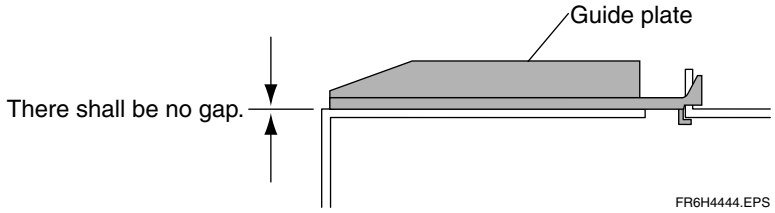


■ Reinstallation Procedures

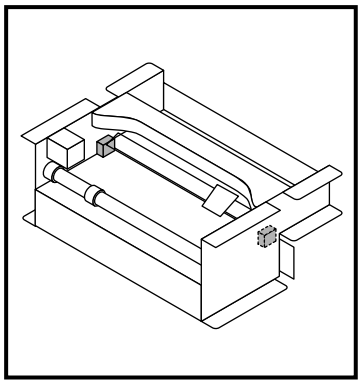
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

• Make sure that the guide plate is not lifted.



5.14 Stopper



FR6H4456.EPS

■ Removal Procedures

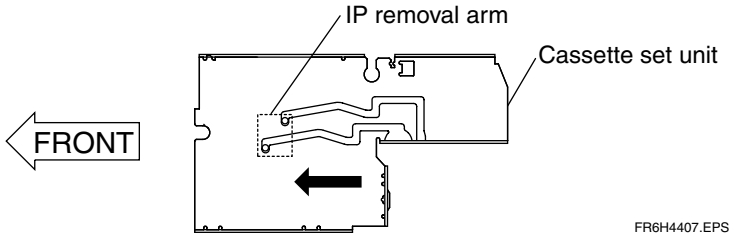
(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

☞ "3.1 Removing and Reinstalling the Covers"

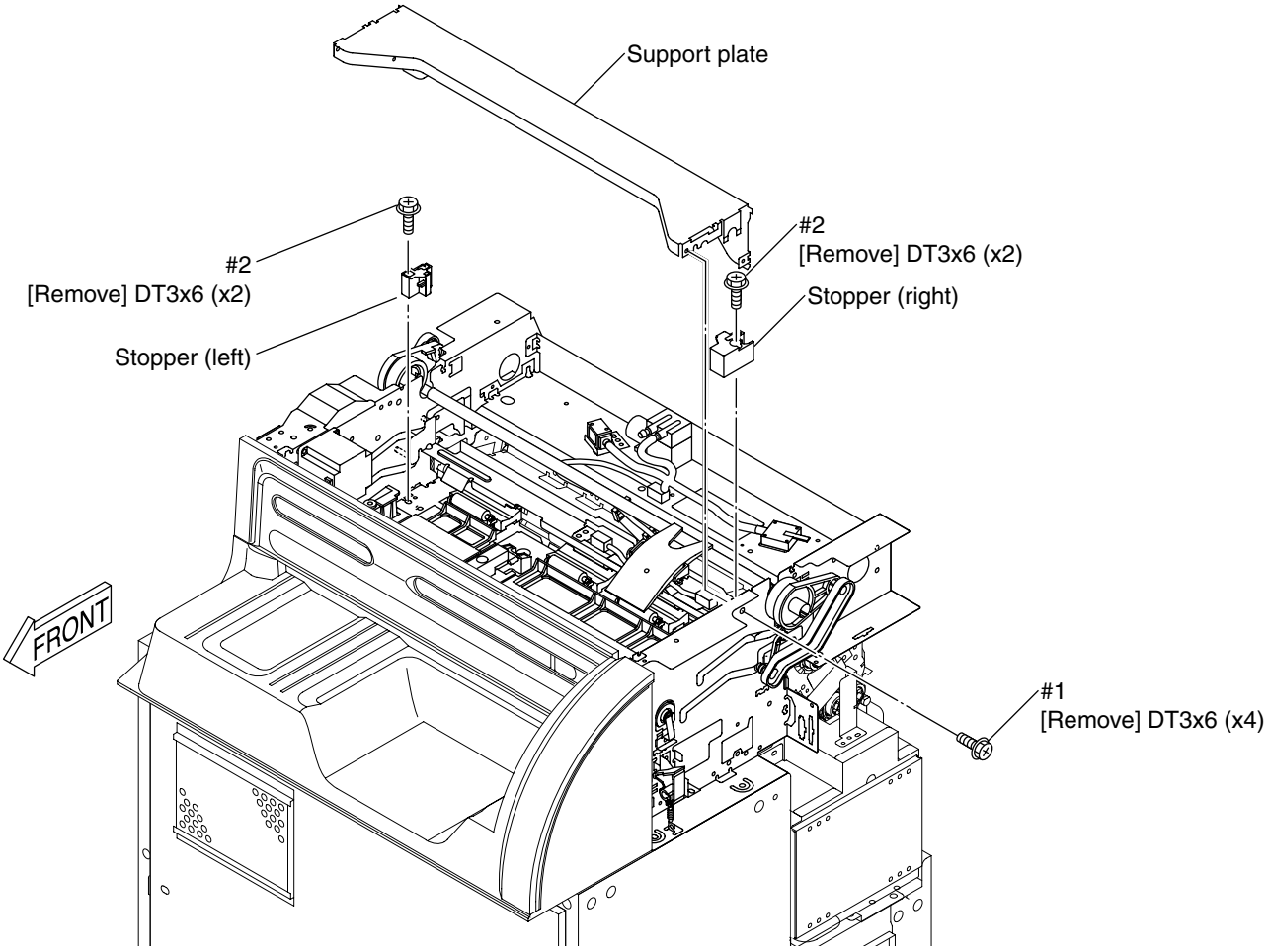
◆ ***NOTE*** ◆

Move the IP removal arm to its IP suction position before performing the procedures.



FR6H4407.EPS

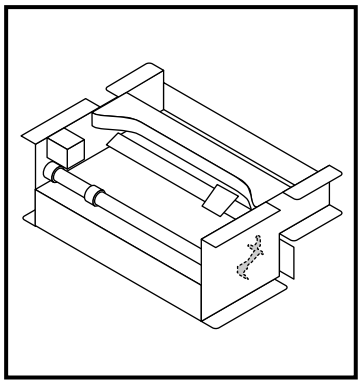
(2) Remove the stopper (left) and stopper (right).



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

5.15 Actuator (Cassette IN Detection)



FR6H4457.EPS

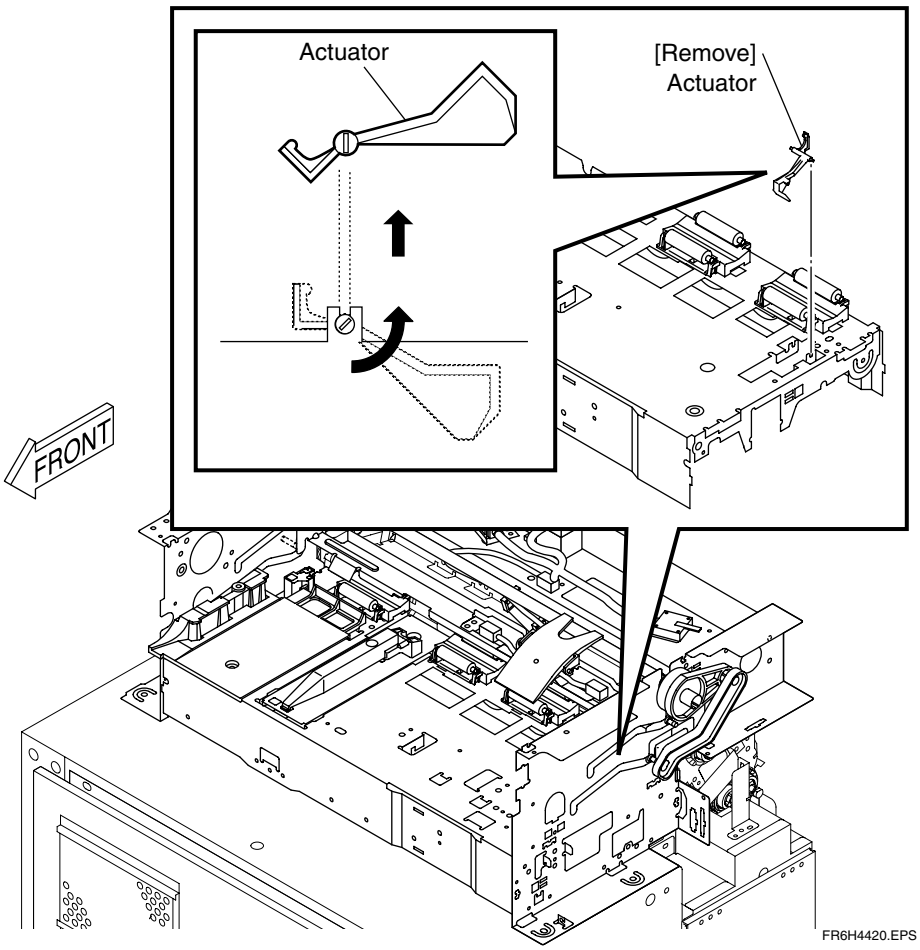
■ Removal Procedures

(1) Remove the shelf cover assembly.
☞ “5.1 Shelf Cover Assembly”

(2) Remove the guide plate (large).
☞ “5.13 Guide Plate”

(3) Remove the stopper (right).
☞ “5.14 Stopper”

(4) Remove the actuator.

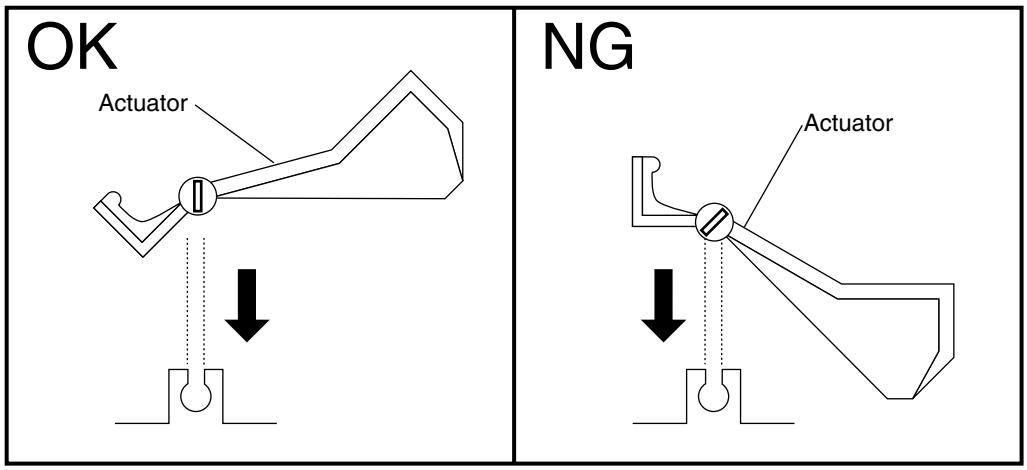


FR6H4420.EPS

■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

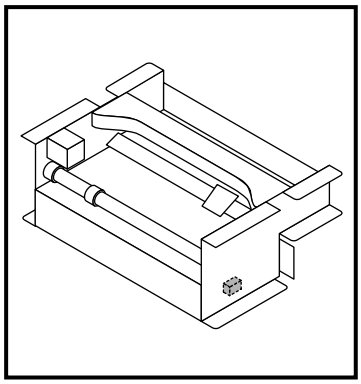
The actuator should be installed properly.



FR6H4421.EPS

For reinstallation, reverse the removal steps.

5.16 Sensor (SA2)



FR6H4461.EPS

■ Removal Procedures

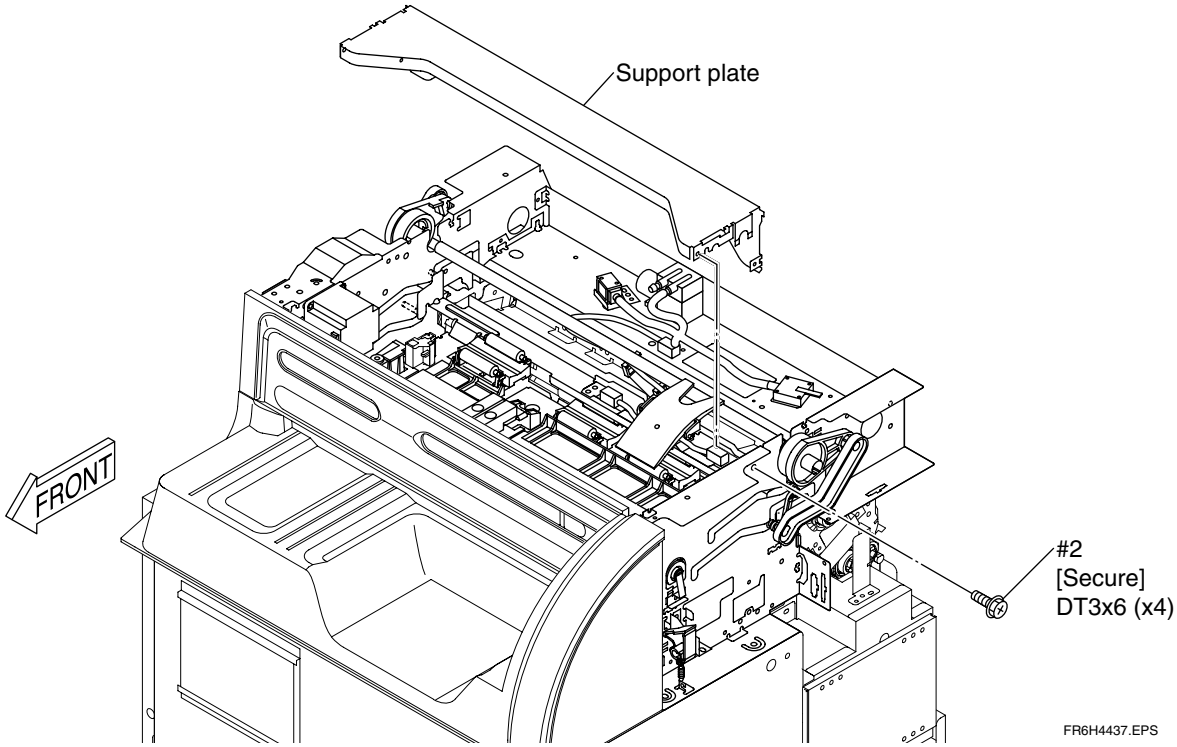
(1) Remove the cassette set unit.

☞ "5.3 Cassette Set Unit"

(2) Remove the actuator (cassette IN detection).

☞ "5.15 Actuator (Cassette IN Detection)

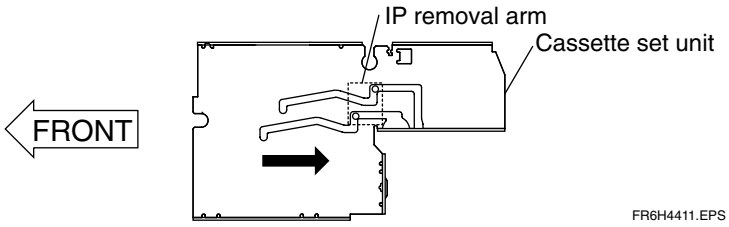
(3) Attach the support plate.



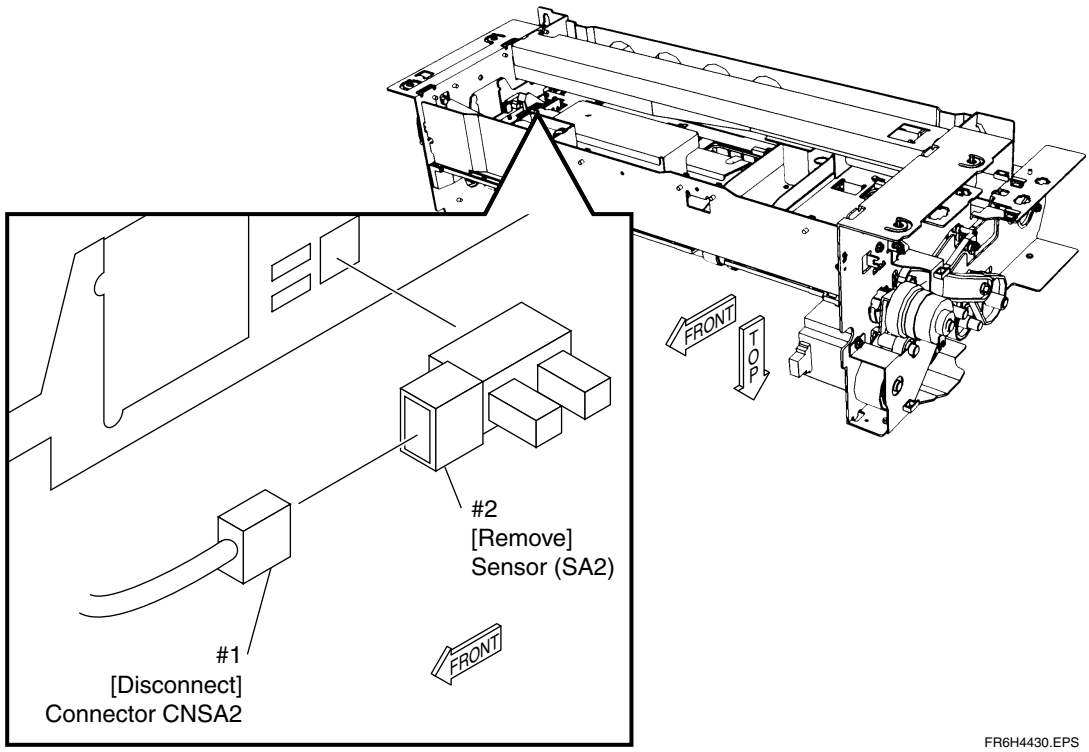
FR6H4437.EPS

◆ ***NOTES*** ◆

• To remove the sensor (SA2), access it from behind the cassette set unit.
• Move the IP removal arm to its home position before performing the procedures.



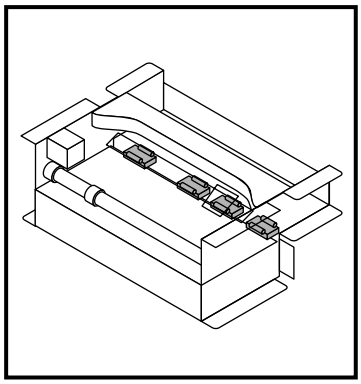
(4) Remove the sensor (SA2).



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

5.17 Roller Assembly



FR6H4458.EPS

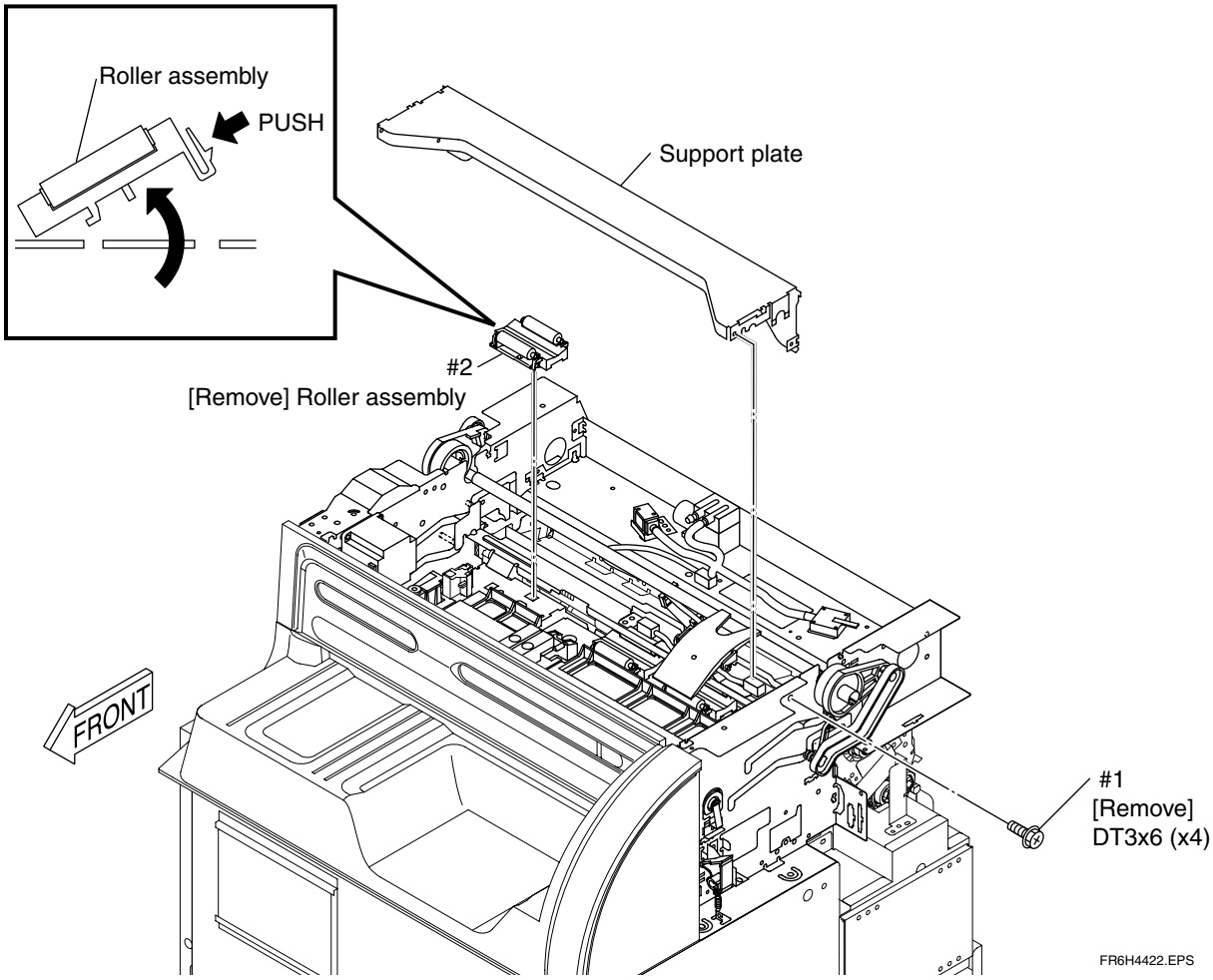
■ Removal Procedures

(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

☞ “3.1 Removing and Reinstalling the Covers”

(2) Remove the roller assembly.

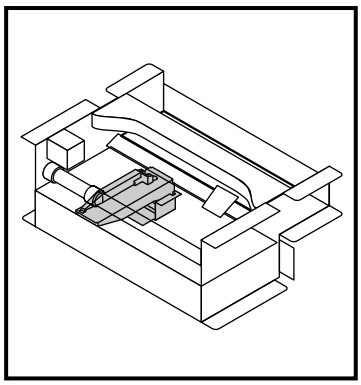


FR6H4422.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

5.18 Movable Guide Assembly



FR6H4460.EPS

■ Removal Procedures

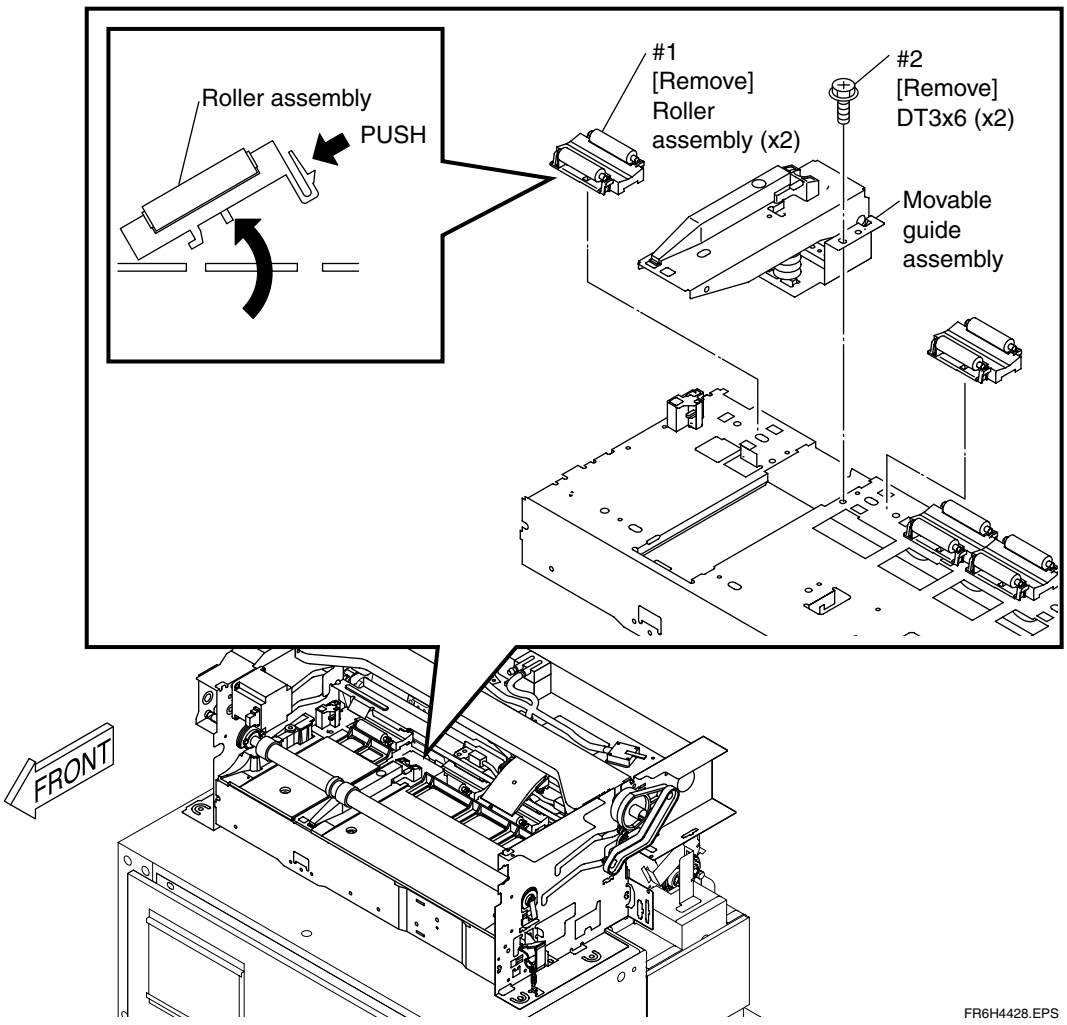
(1) Remove the guide plate.

☞ "5.13 Guide Plate"

(2) Remove the roller assembly.

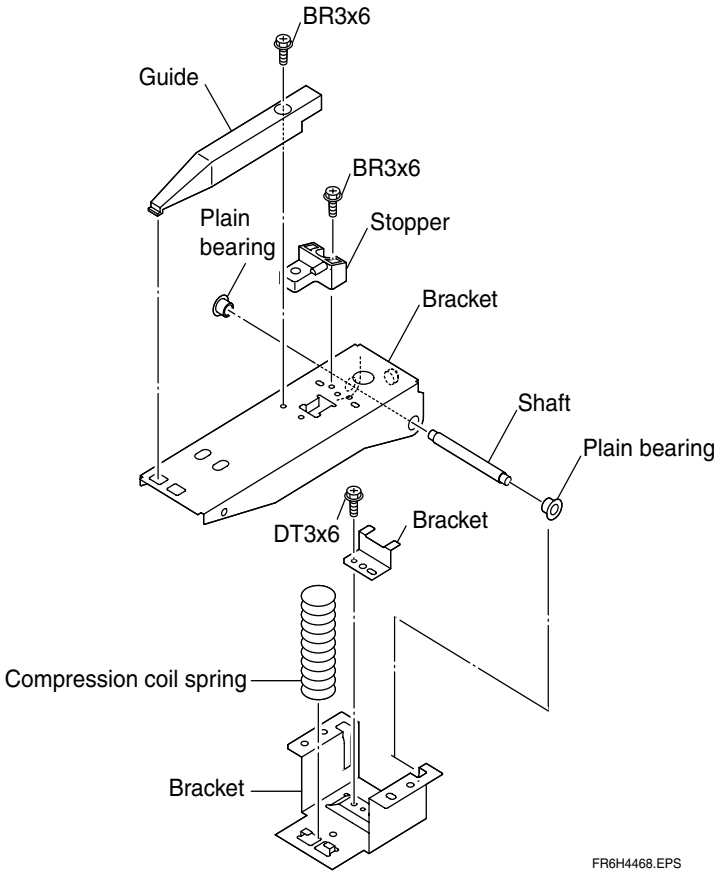
☞ "5.17 Roller Assembly"

(3) Remove the movable guide assembly.



FR6H4428.EPS

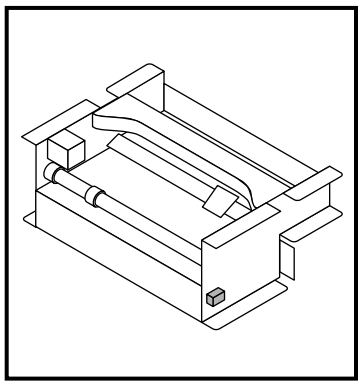
■ Exploded View



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

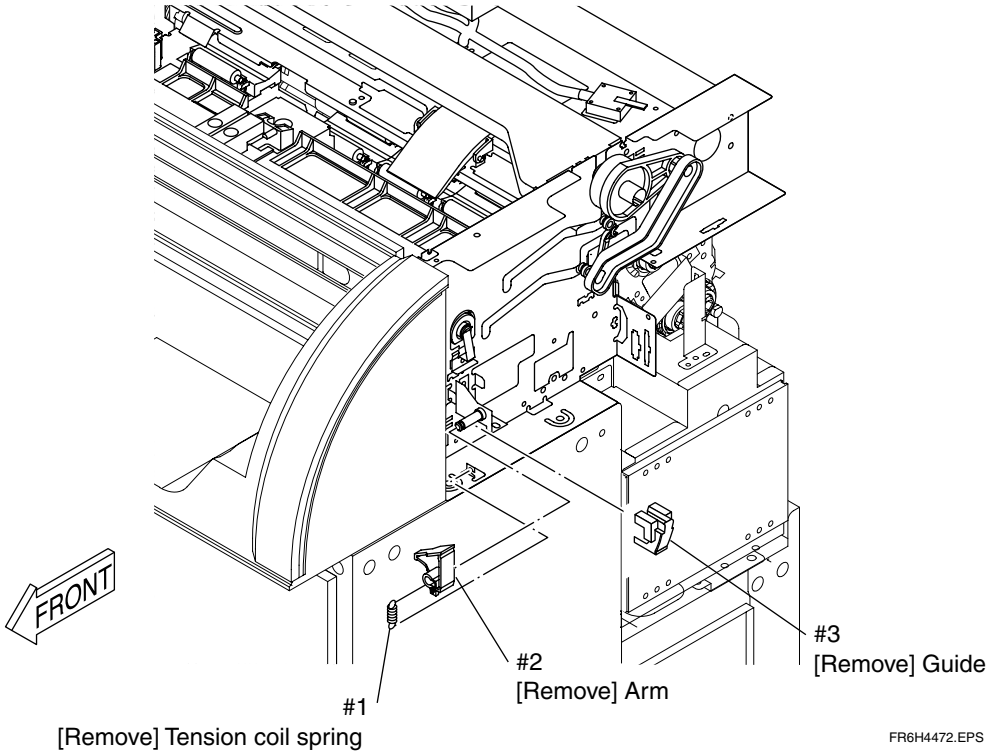
5.19 Sensor (SA3)



FR6H4471.EPS

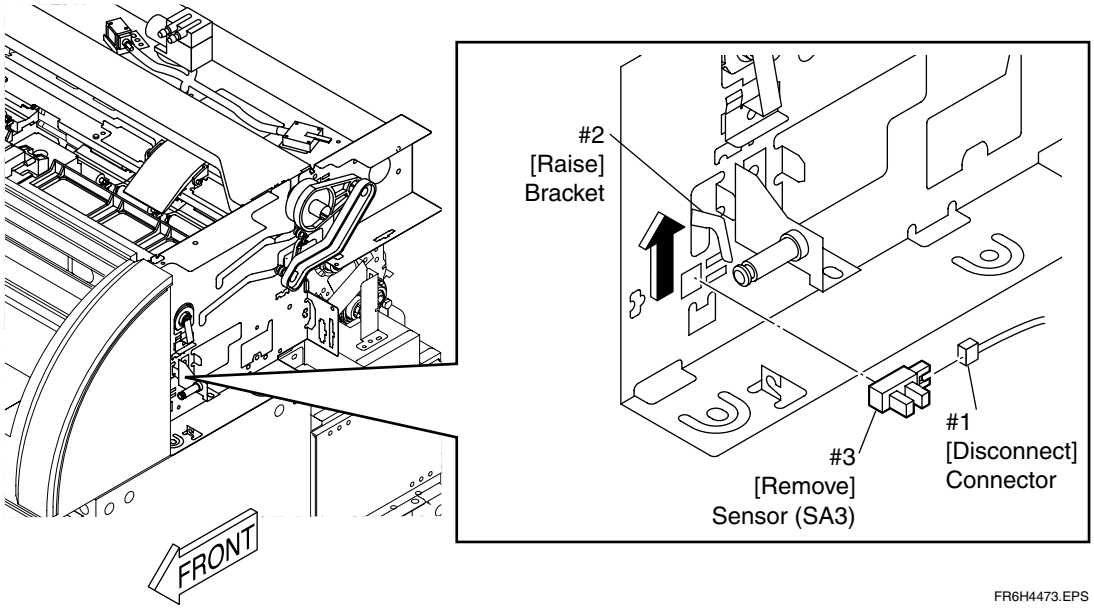
■ Removal Procedures

(1) Remove the guide.



FR6H4472.EPS

(2) Remove the sensor (SA3).



FR6H4473.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

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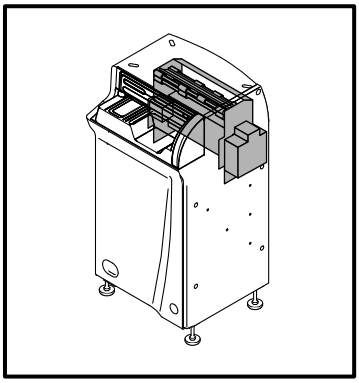
6. Removing and Reinstalling the Erasure Conveyor

6.1 Erasure Conveyor



FR6H4567.EPS

■ Removal Procedures

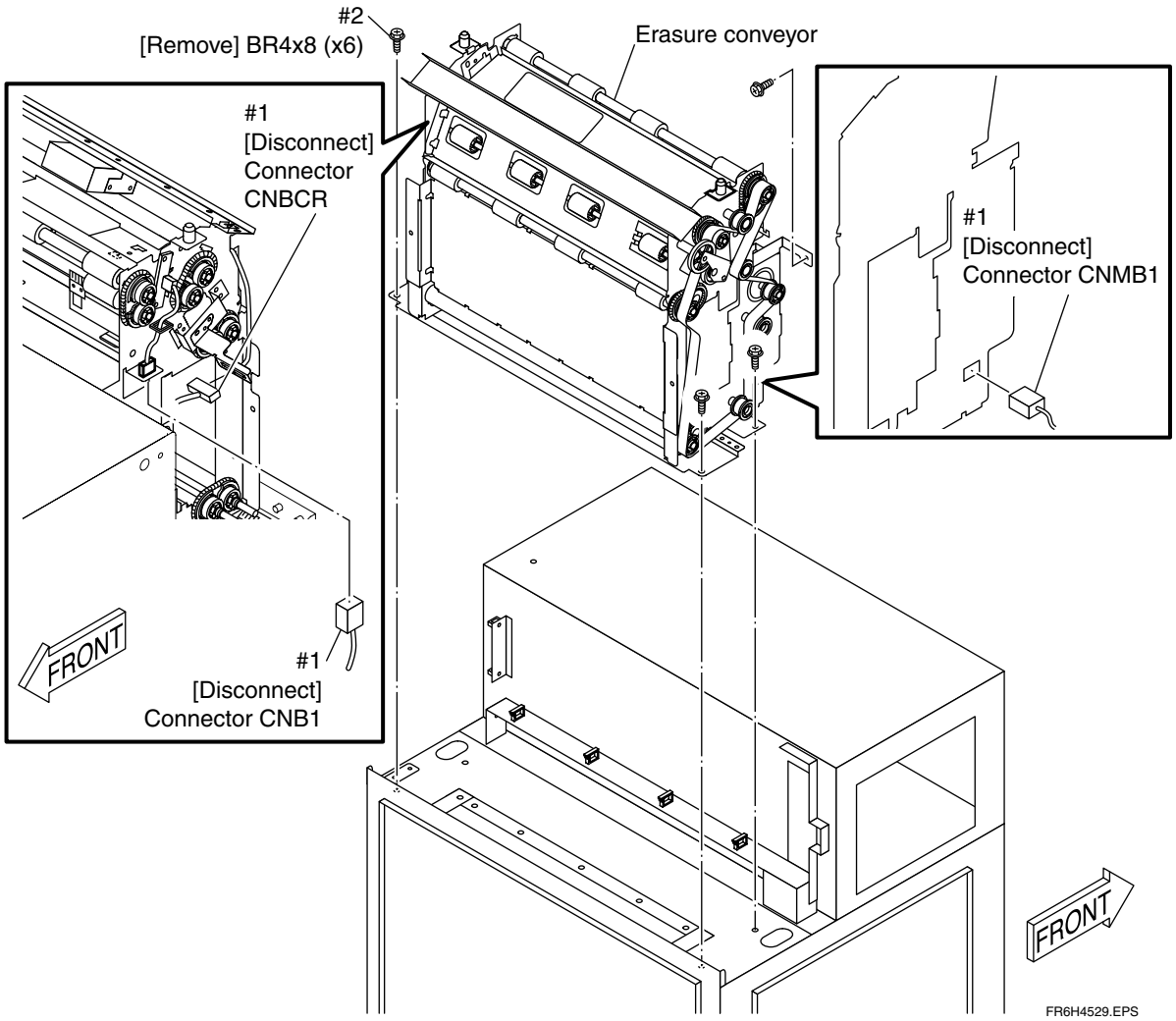
(1) Remove the cassette set unit.
☞ “5.3 Cassette Set Unit”

(2) Remove the rear cover.
☞ “3.1 Removing and Reinstalling the Covers”

(3) Remove the lamp assembly.
☞ “6.2 Lamp Assembly”

(4) Remove the duct box.
☞ “6.7 Duct box”

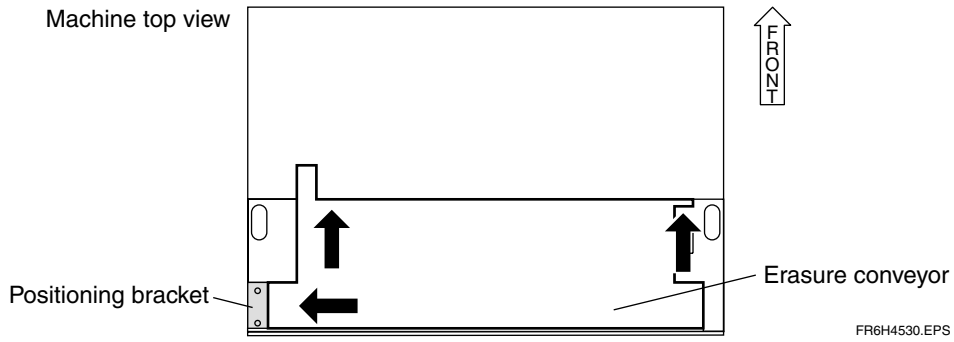
(5) Remove the erasure conveyor.



■ Reinstallation Procedures

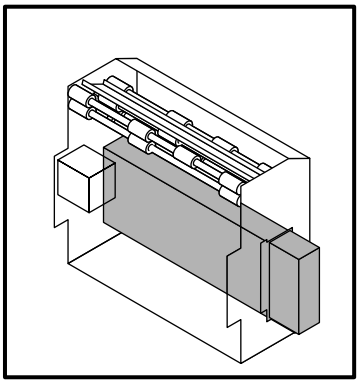
◆ *NOTE* ◆

When installing the erasure conveyor, align it against the positioning bracket.



For reinstallation, reverse the removal steps.

6.2 Lamp Assembly



FR6H4551.EPS

◇ ***REFERENCE*** ◇

The lamp assembly is mounted along with rail.

■ Removal Procedures

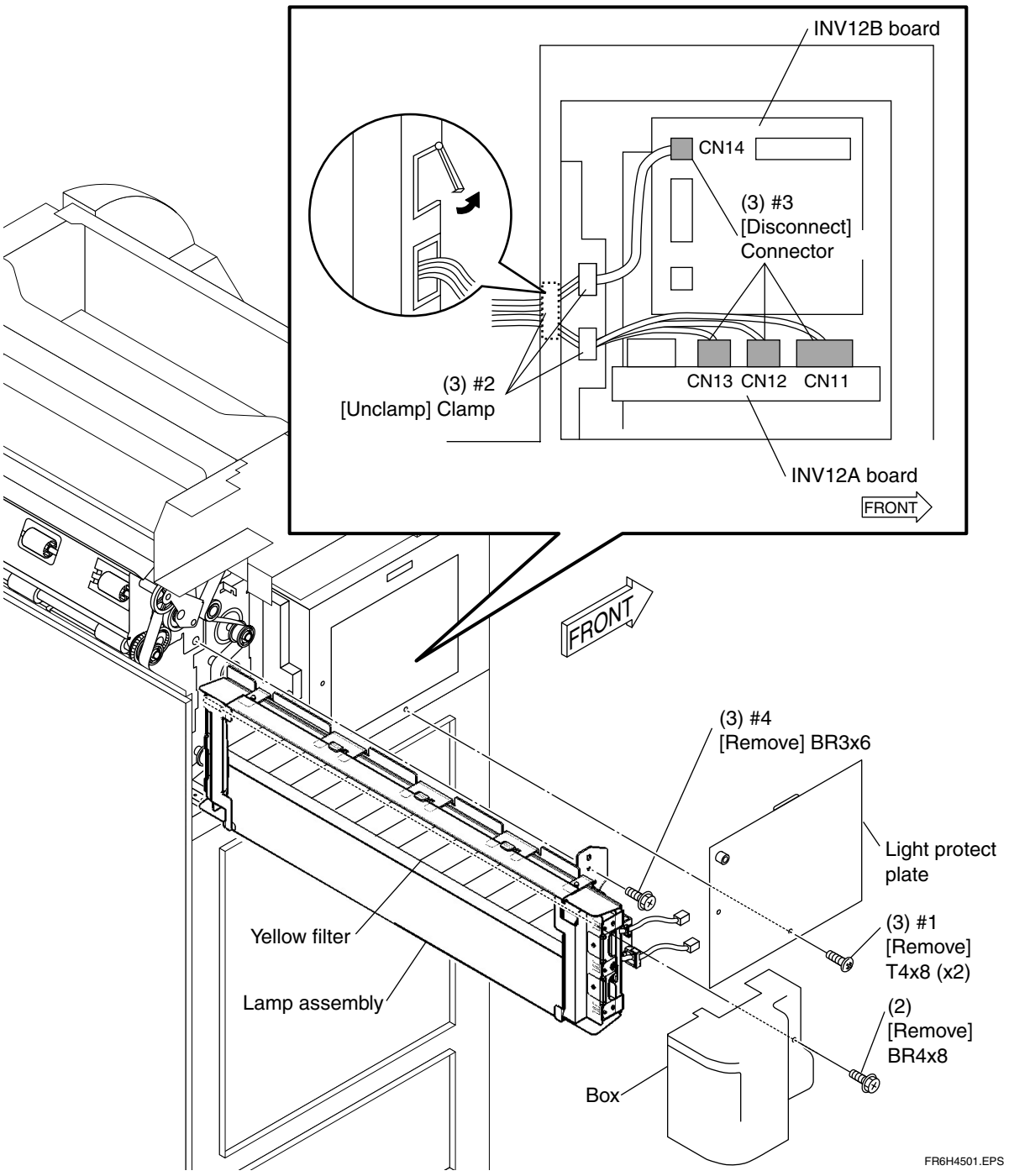
(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

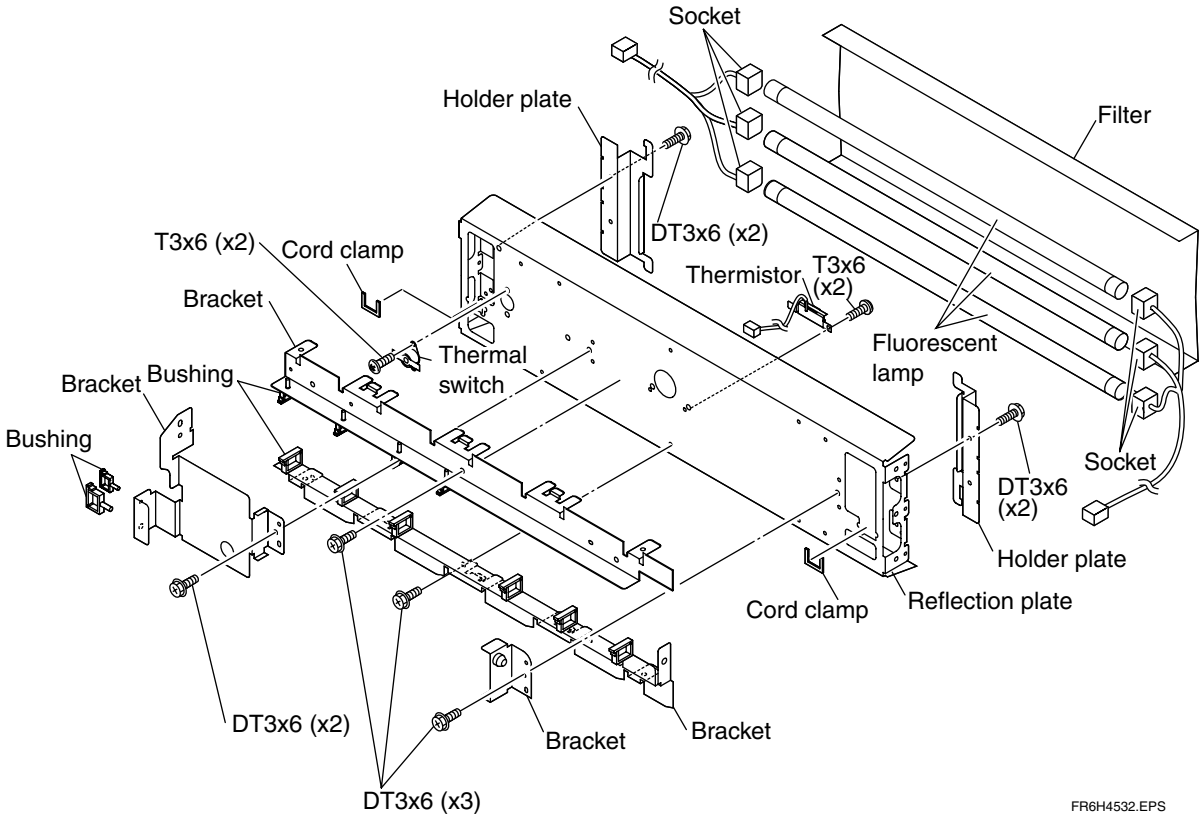
☞ “3.1 Removing and Reinstalling the Covers”

(2) Remove the box.

(3) Remove the lamp assembly.



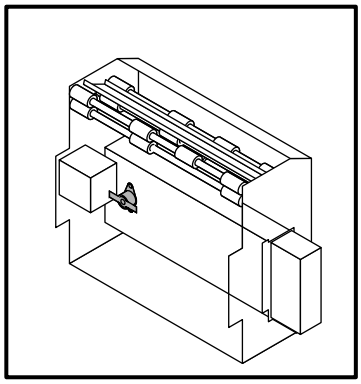
■ Exploded View



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

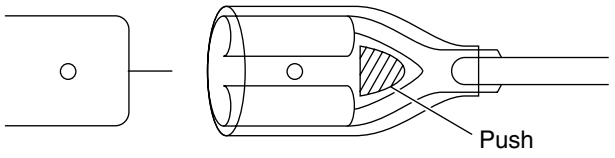
6.3 Thermal Switch (TSWB1)



FR6H4555.EPS

◆ ***NOTE*** ◆

To remove the FASTON terminal, push the shaded portion of the terminal illustrated below to detach it.



FR6H0001.EPS

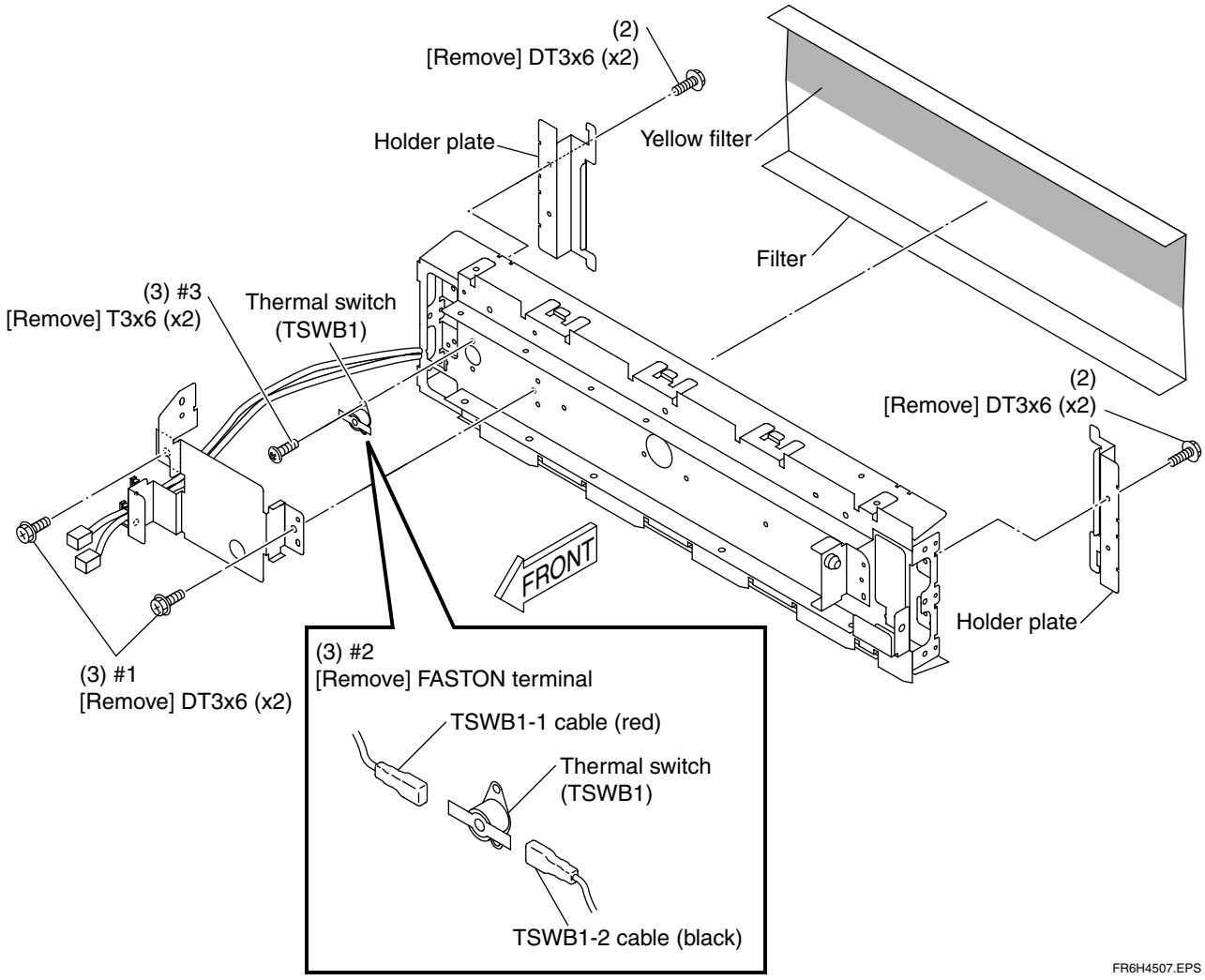
■ Removal Procedures

(1) Remove the lamp assembly.

☞ “6.2 Lamp Assembly”

(2) Remove the filter.

(3) Remove the thermal switch (TSWB1).



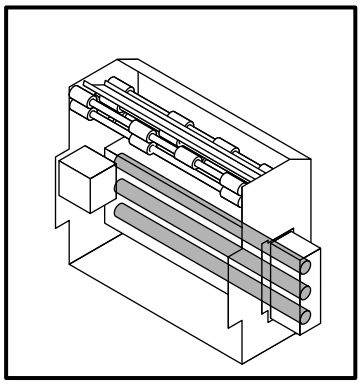
■ Reinstallation Procedures

◆ *NOTE* ◆

To attach the FASTON terminal, insert it all the way to secure it in place.

For reinstallation, reverse the removal steps.

6.4 Lamp



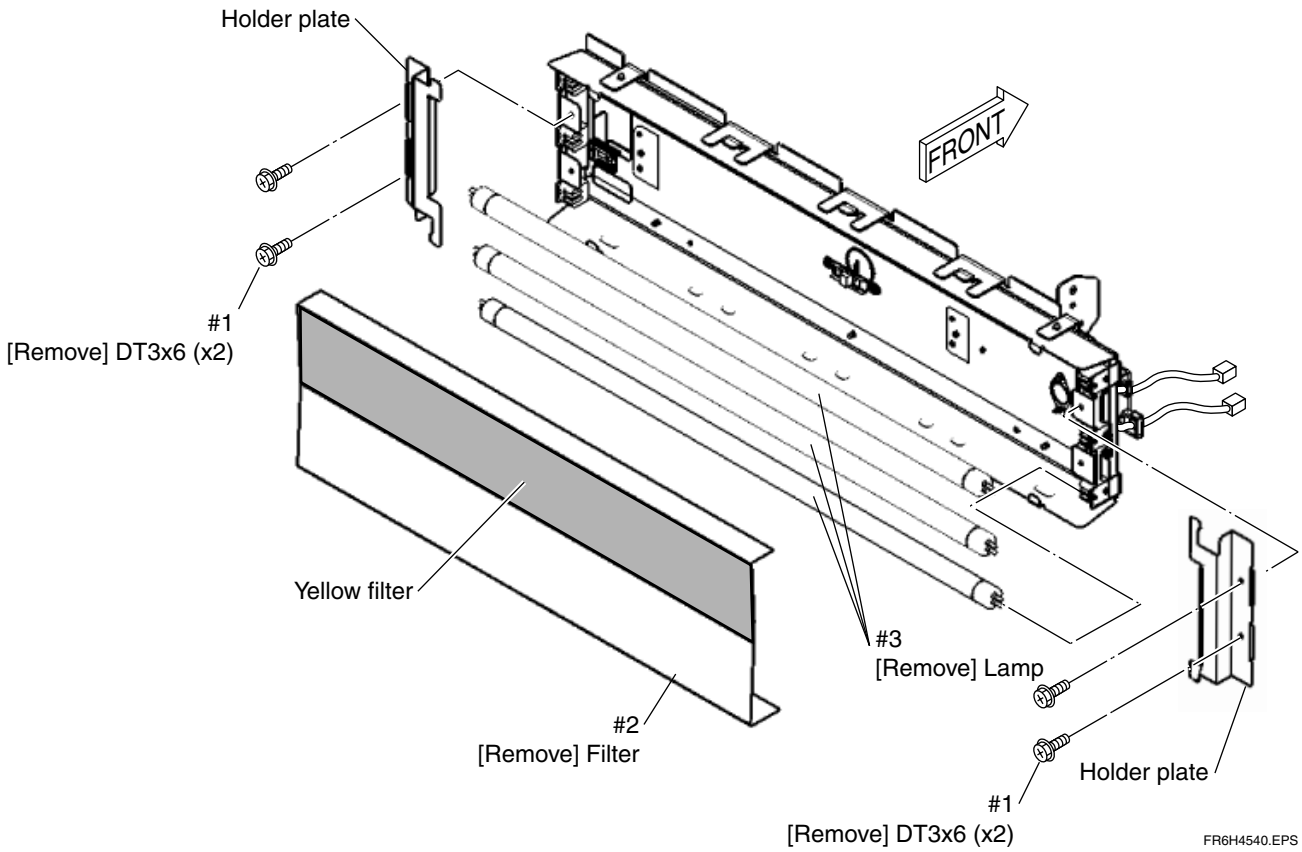
FR6H4552.EPS

■ Removal Procedures

(1) Remove the lamp assembly.

☞ “6.2 Lamp Assembly”

(2) Remove the lamps.

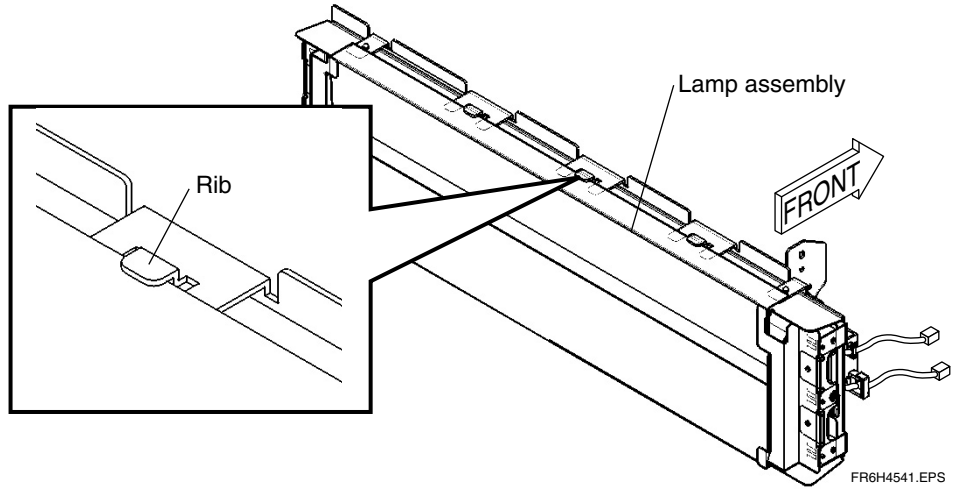


FR6H4540.EPS

■ Reinstallation Procedures

◆ *NOTES* ◆

• After installing the filter, wipe the filter with a moistened cloth.
• To install the filter, put the filter under the rib of the lamp assembly.

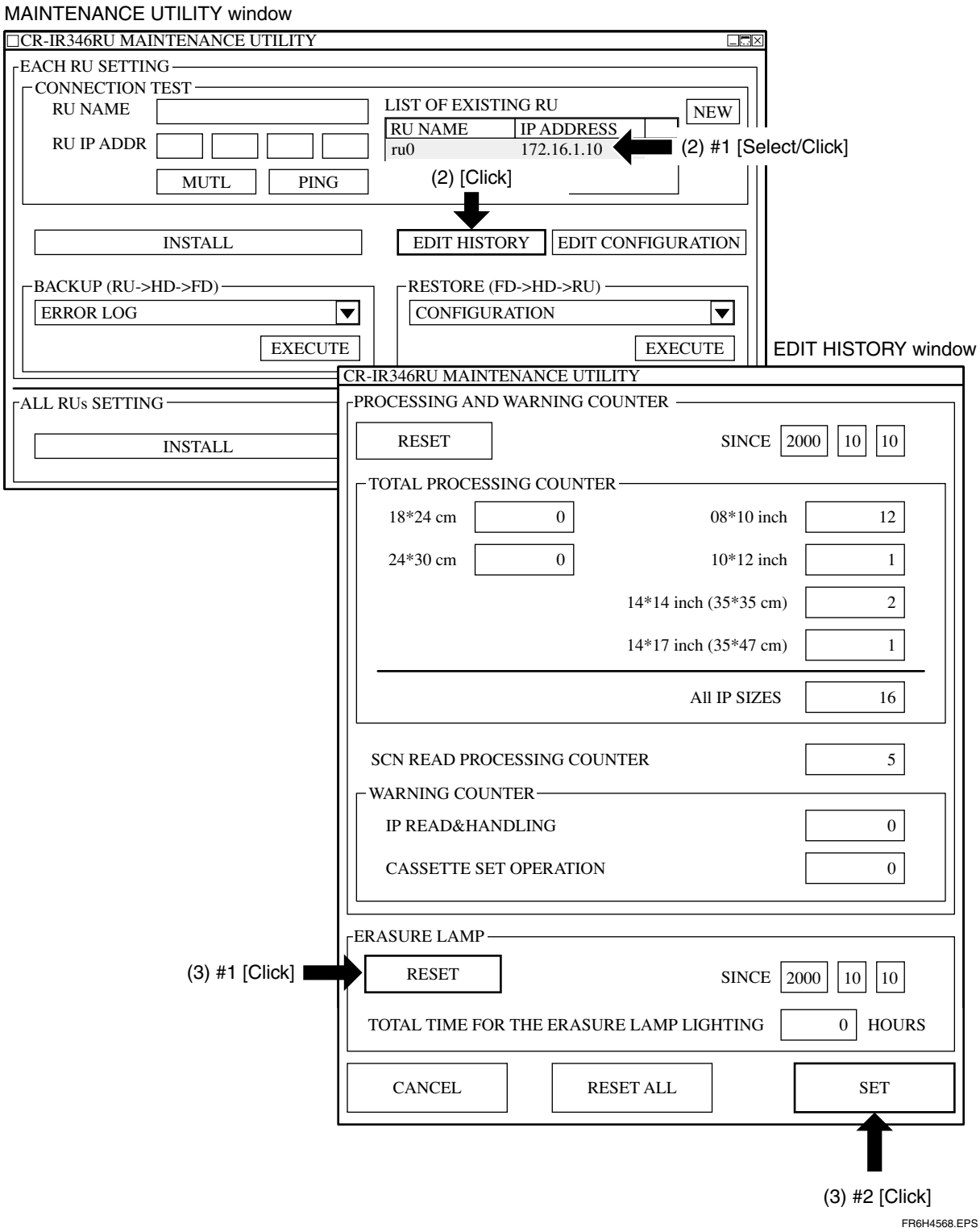


For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

• Reset the erasure lamp lightening time.

(1) Open the MAINTENANCE UTILITY window.
(2) Open the EDIT HISTORY window.
(3) Reset the erasure lamp lightening time.



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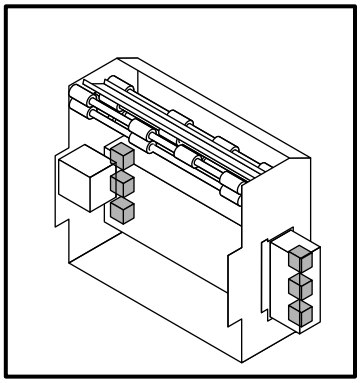
6.5 Lamp Socket



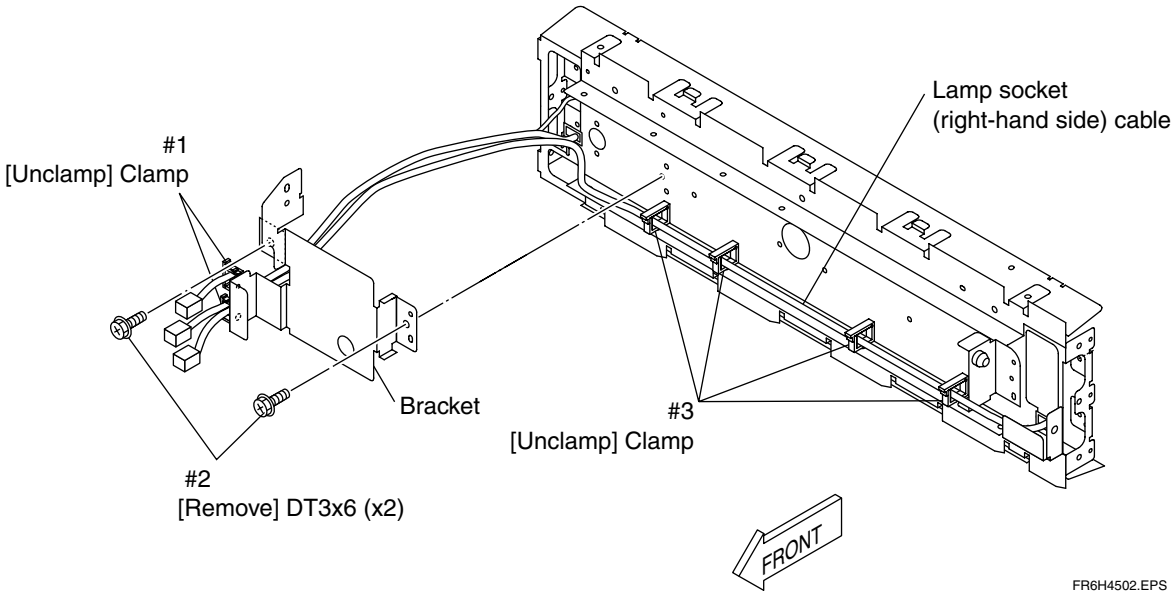
FR6H4553.EPS

■ Removal Procedures

(1) Remove the lamp.

☞ "6.4 Lamp"

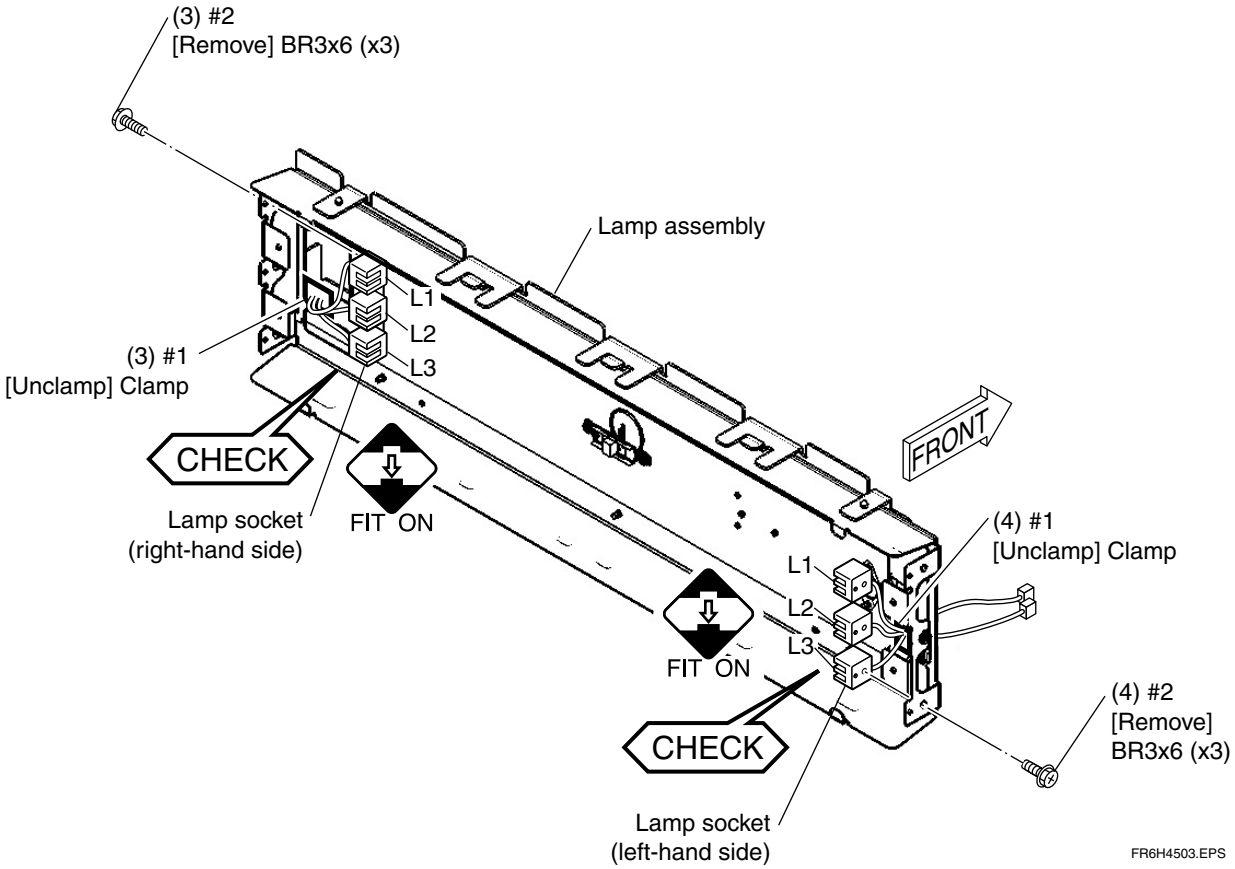
(2) Remove the bracket.



FR6H4502.EPS

(3) Remove the lamp socket (right-hand side).

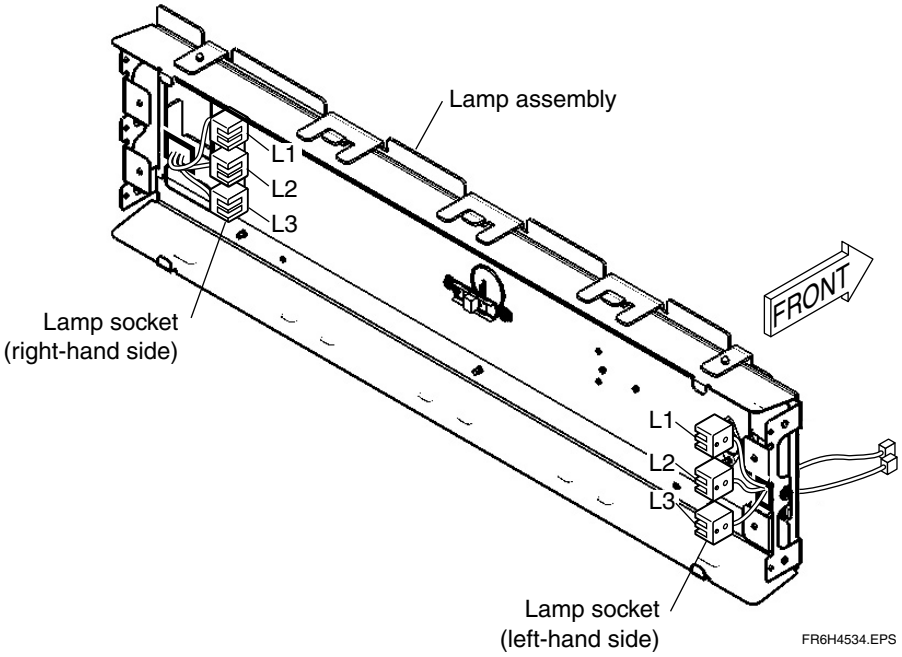
(4) Remove the lamp socket (left-hand side).



■ Reinstallation Procedures

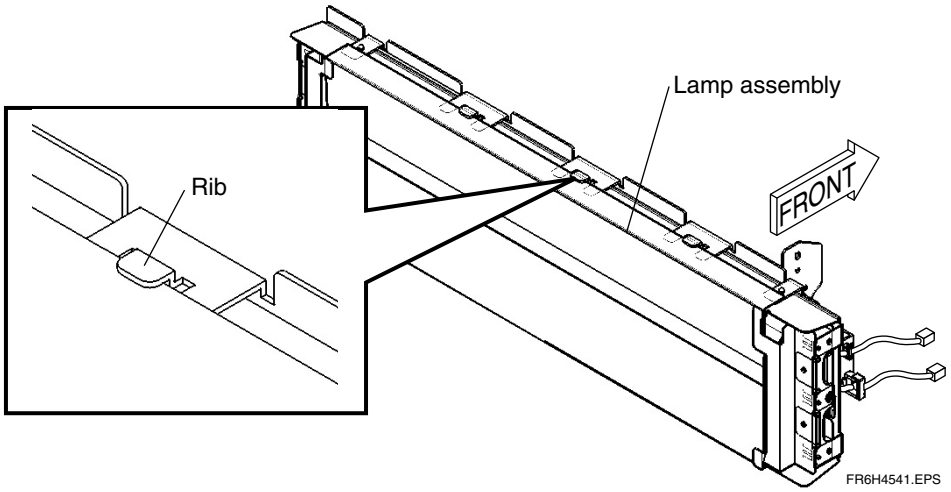
◆ *INSTRUCTION* ◆

When installing the lamp sockets, they should be installed in place as illustrated below.



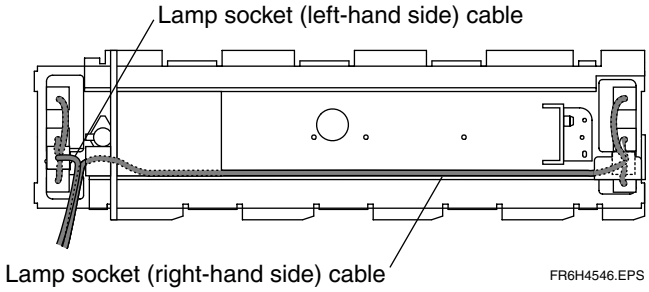
◆ *NOTES* ◆

- *After installing the filter, wipe the filter with a moistened cloth.*
- *To install the filter, put the filter under the rib of the lamp assembly.*



◇ ***REFERENCE*** ◇

Cable route

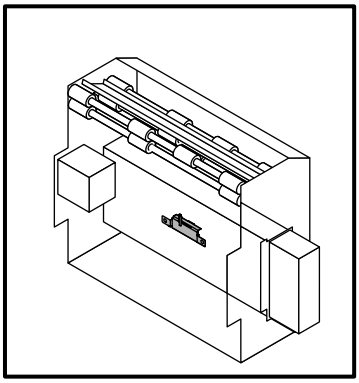


For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

• Make sure that the lamp sockets are installed in their proper position.

6.6 Thermistor



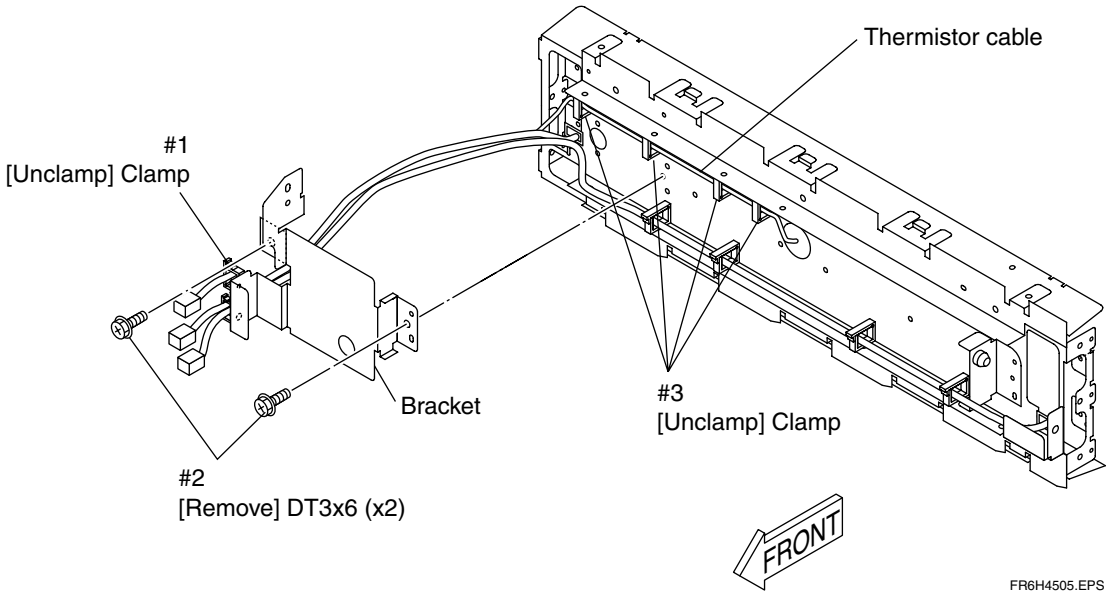
FR6H4554.EPS

■ Removal Procedures

(1) Remove the lamp.

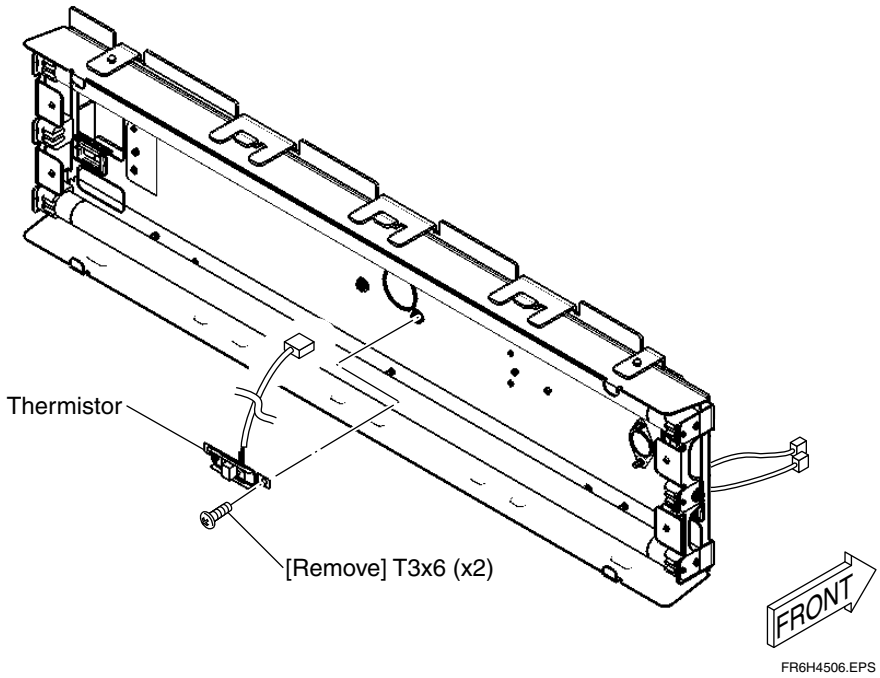
☞ “6.4 Lamp”

(2) Remove the bracket.



FR6H4505.EPS

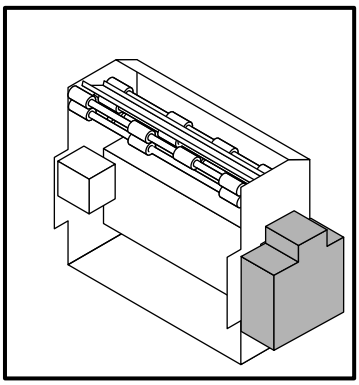
(3) Remove the thermistor.



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

6.7 Duct Box



FR6H4556.EPS

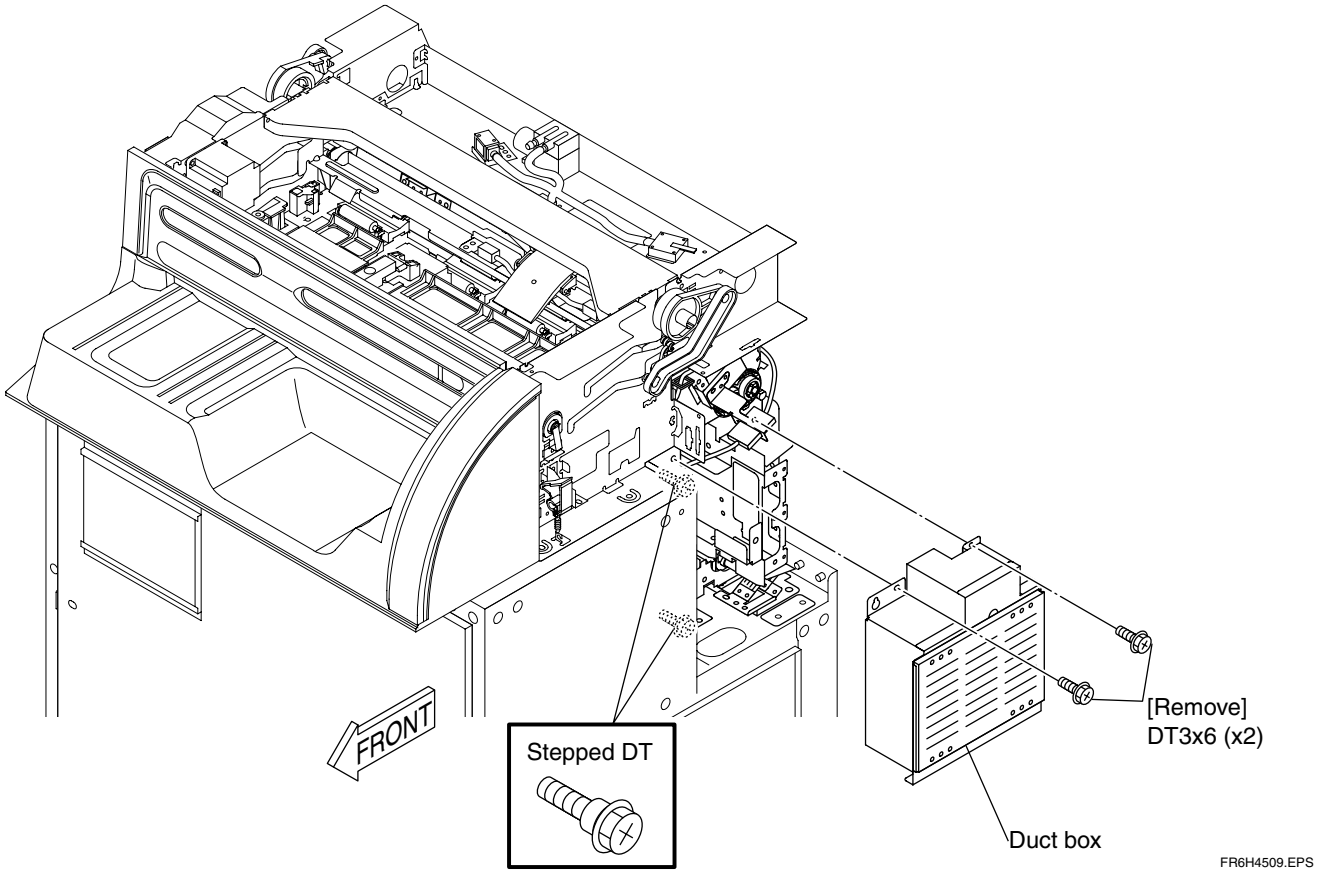
■ Removal Procedures

(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

☞ “3.1 Removing and Reinstalling the Covers”

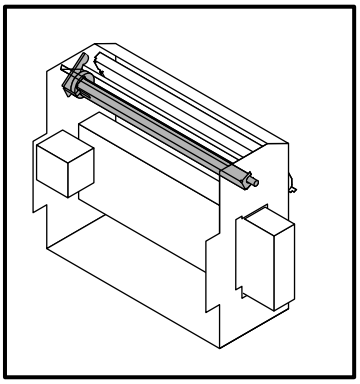
(2) Remove the duct box.



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

6.8 Cleaning Roller Assembly



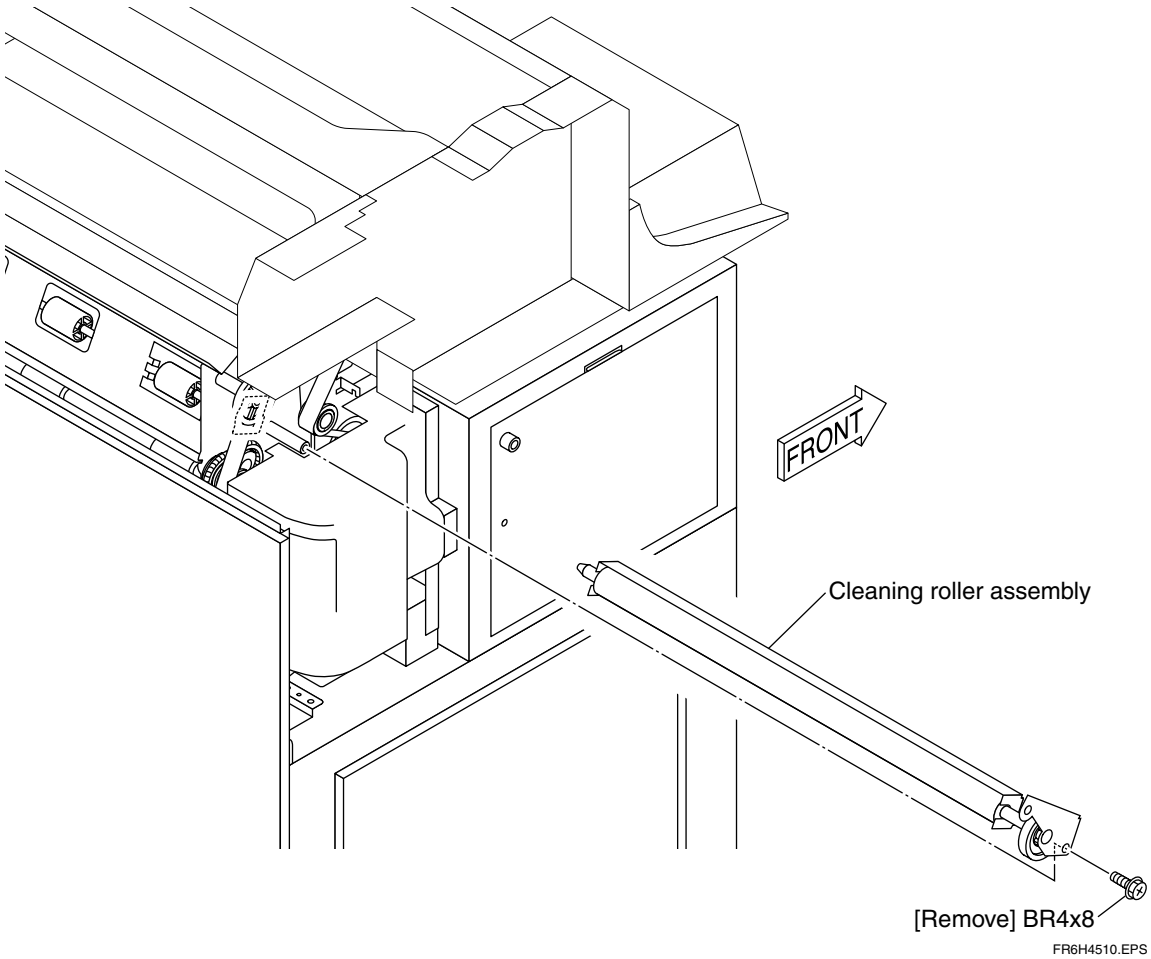
FR6H4557.EPS

■ Removal Procedures

(1) Remove the covers.
- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

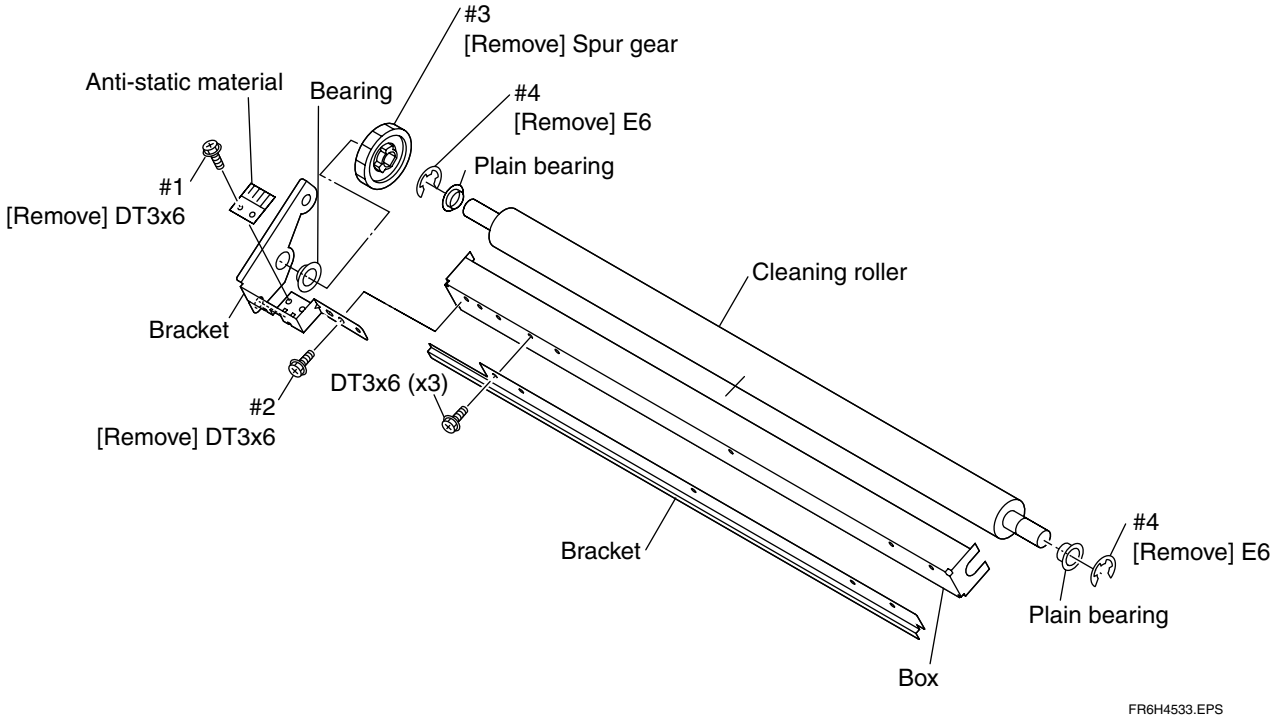
☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the cleaning roller assembly.



FR6H4510.EPS

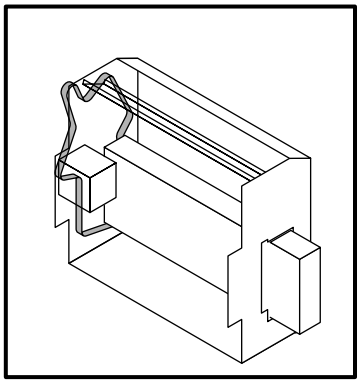
■ Exploded View



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

6.9 Timing Belt



FR6H4558.EPS

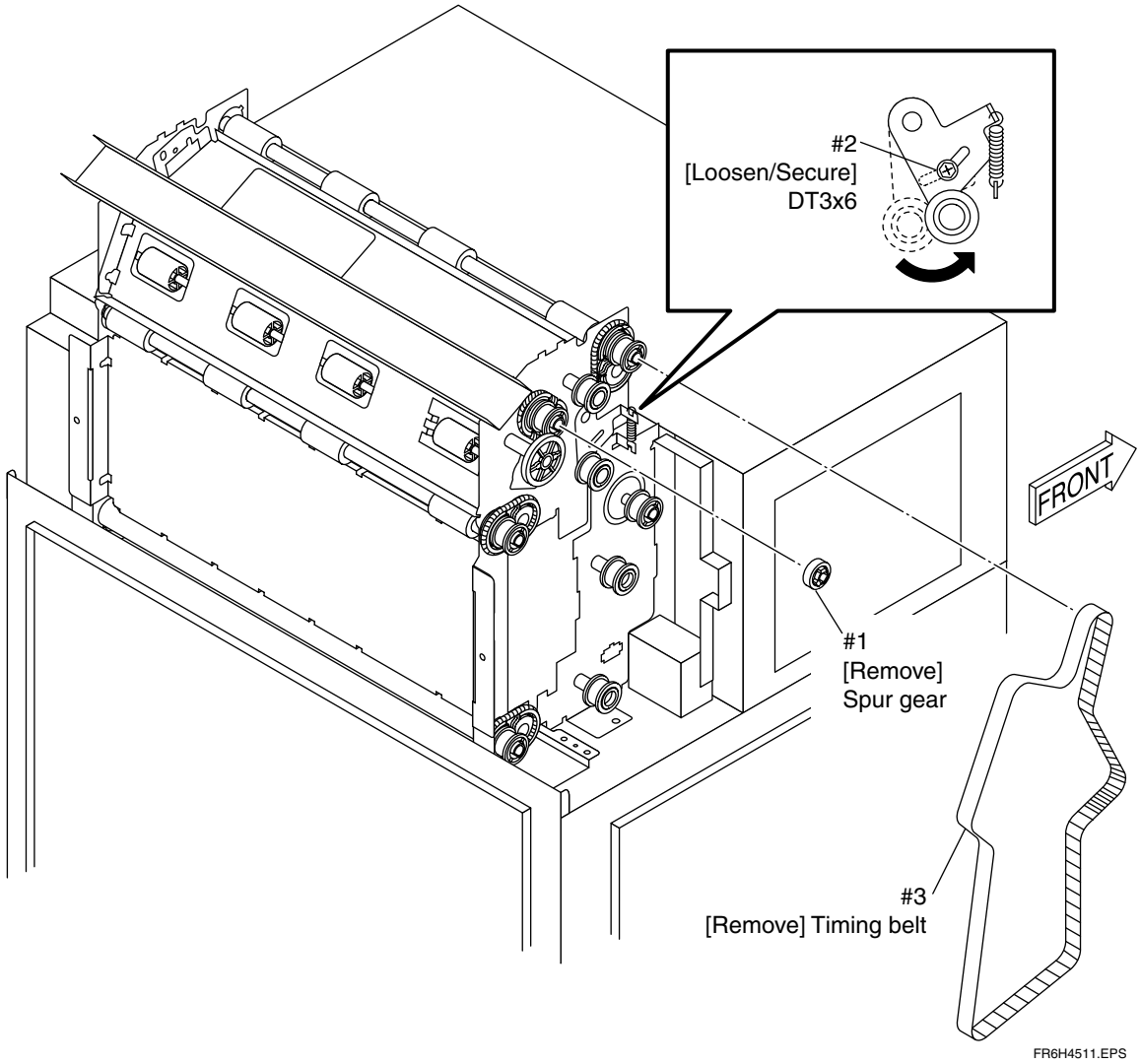
■ Removal Procedures

(1) Remove the cassette set unit.
☞ “5.3 Cassette Set Unit”

(2) Remove the lamp assembly.
☞ “6.2 Lamp Assembly”

(3) Remove the cleaning roller assembly.
☞ “6.8 Cleaning Roller Assembly”

(4) Remove the timing belt.

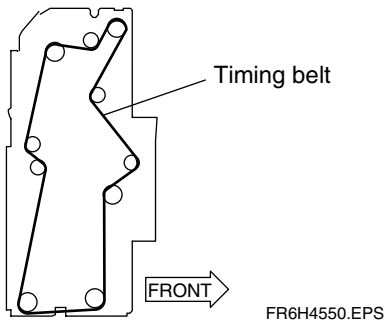


■ Reinstallation Procedures

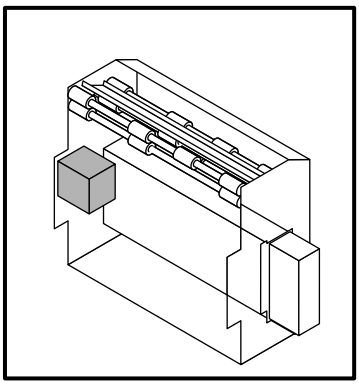
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

• Make sure that the timing belt is mounted in its proper position.



6.10 Motor (MB1)



FR6H4563.EPS

■ Removal Procedures

(1) Remove the lamp assembly.

☞ “6.2 Lamp Assembly”

(2) Remove the rear cover.

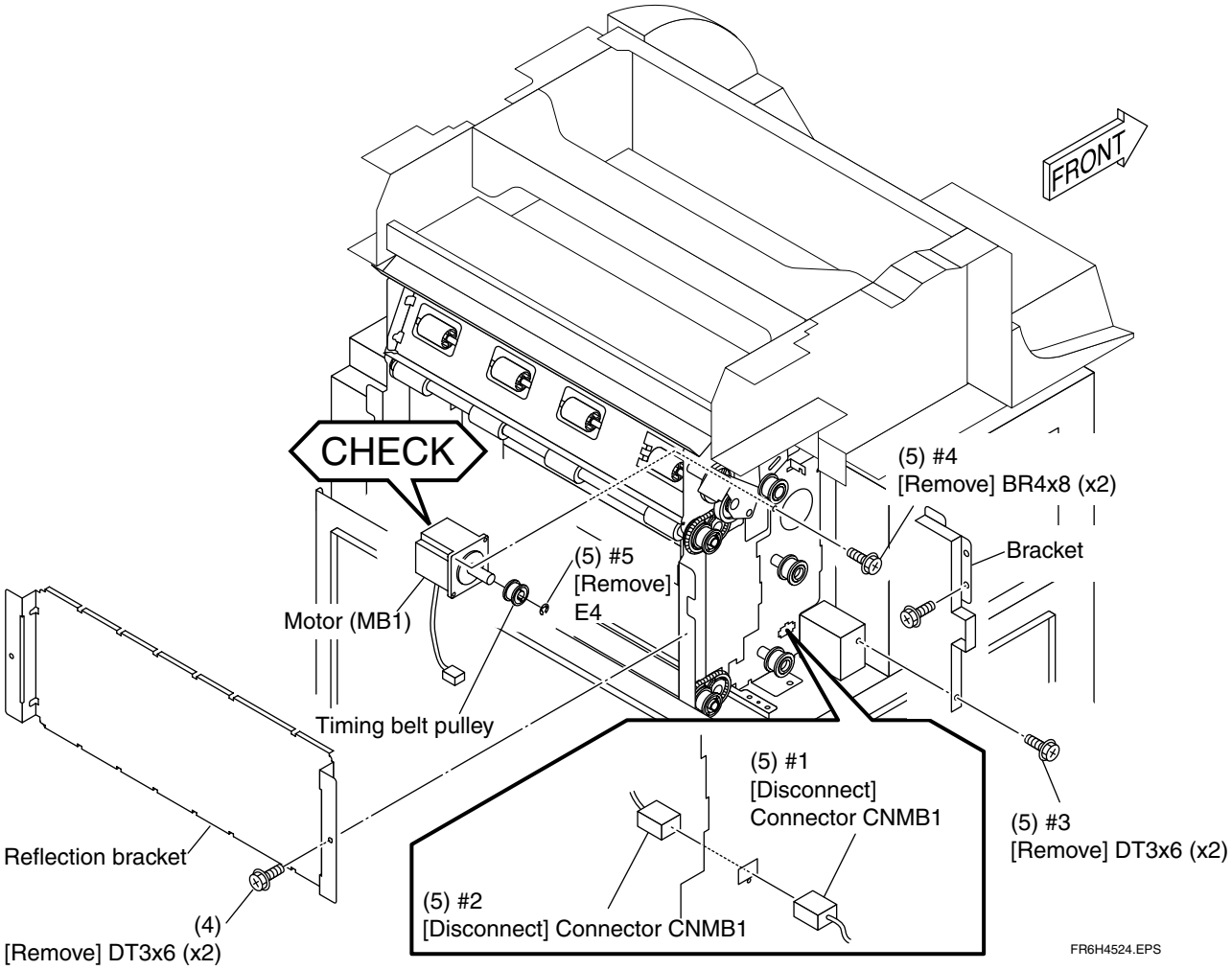
☞ “3.1 Removing and Reinstalling the Covers”

(3) Loosen the belt tension.

☞ “6.9 Timing Belt”

(4) Remove the reflection bracket.

(5) Remove the motor (MB1).

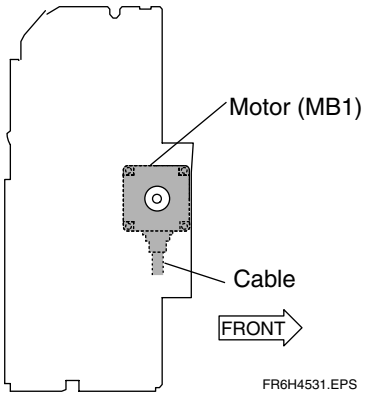


■ Reinstallation Procedures

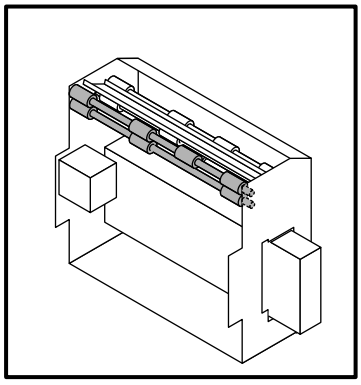
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

• Make sure that the motor (MB1) is mounted in its proper position.

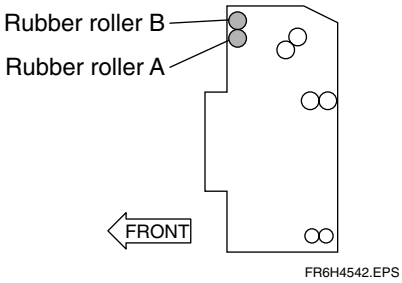


6.11 Rubber Rollers A and B



FR6H4559.EPS

■ Rubber Roller Locations



FR6H4542.EPS

◇ ***REFERENCE*** ◇

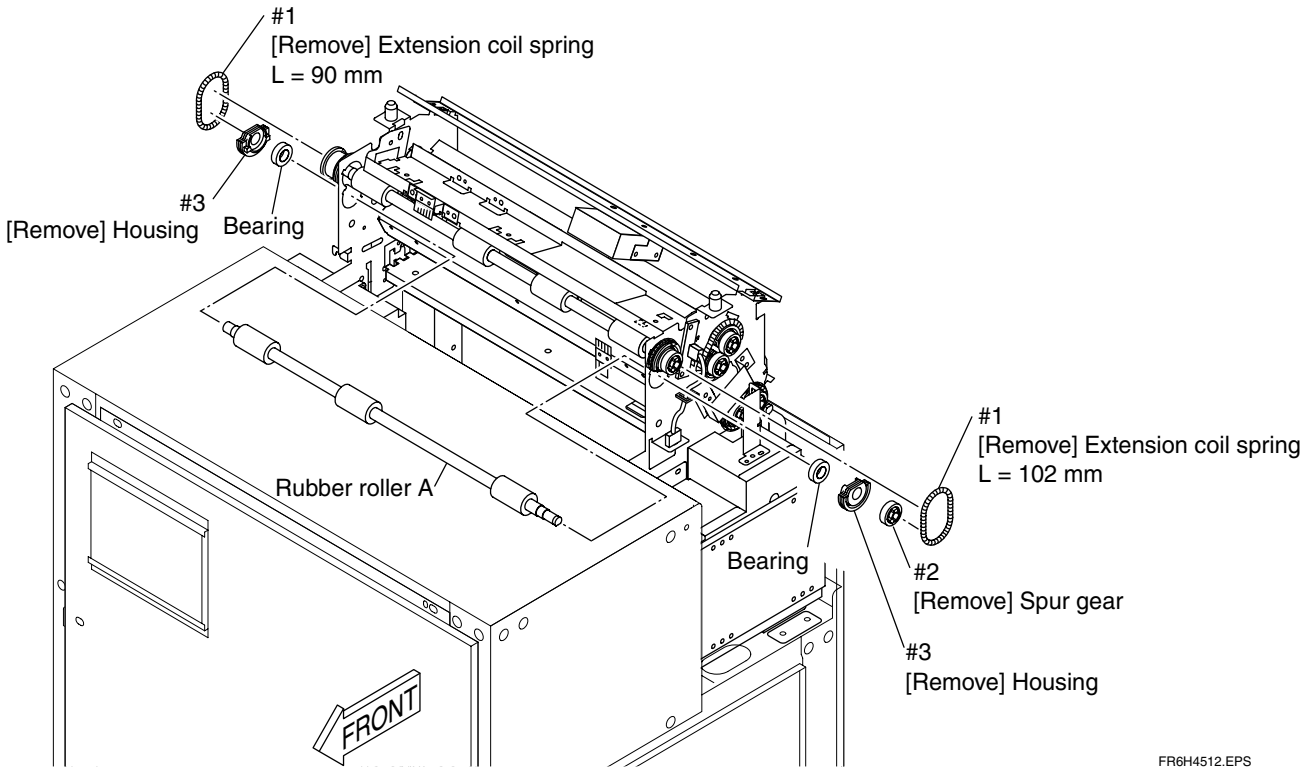
To remove the rubber roller B, the rubber roller A should be removed first.
The rubber roller B cannot be removed alone.

■ Removal Procedures

(1) Remove the timing belt.

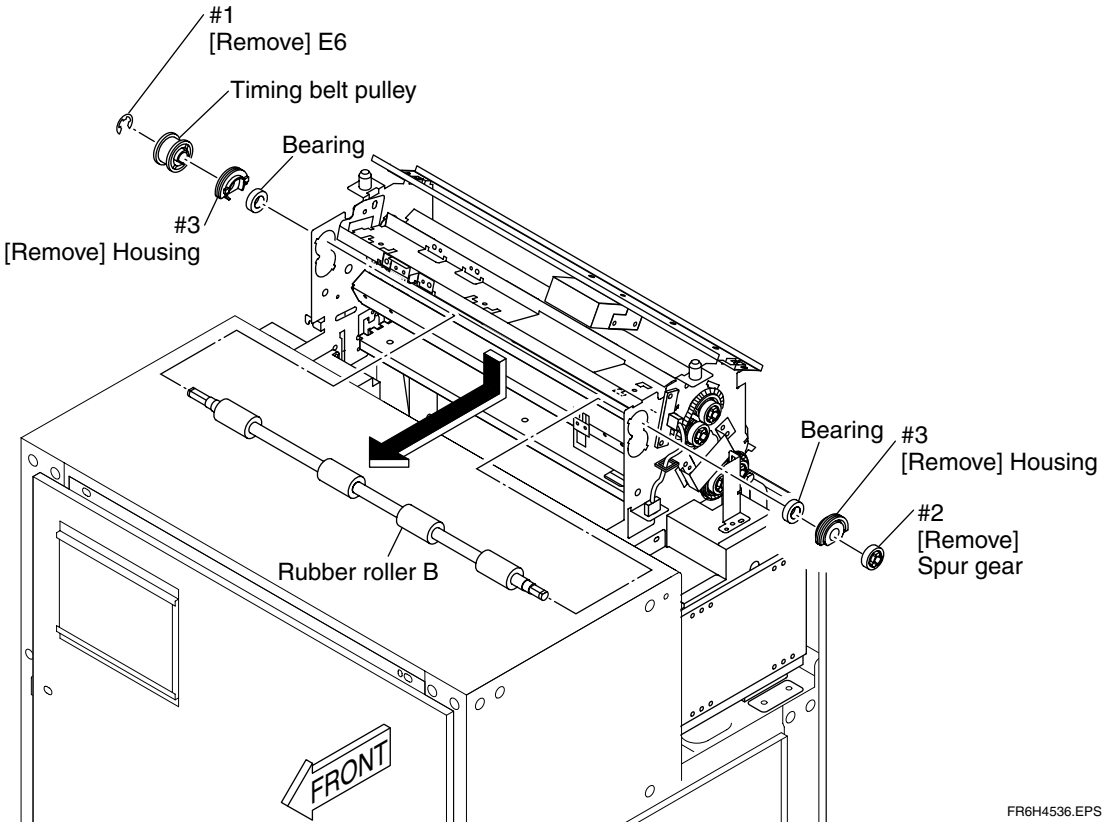
☞ "6.9 Timing Belt"

(2) Remove the rubber roller A.



FR6H4512.EPS

(3) Remove the rubber roller B.



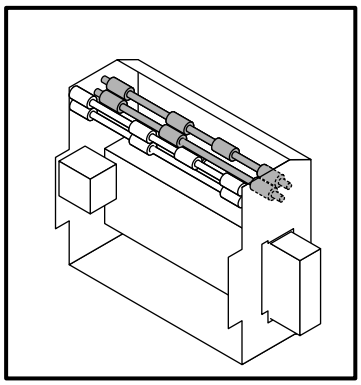
■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

The extension coil springs and rubber rollers differ in size depending on where they are attached. Use care not to confuse their locations.

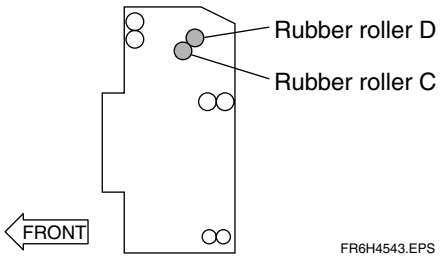
For reinstallation, reverse the removal steps.

6.12 Rubber Rollers C and D



FR6H4560.EPS

■ Rubber Roller Locations



FR6H4543.EPS

◇ ***REFERENCE*** ◇

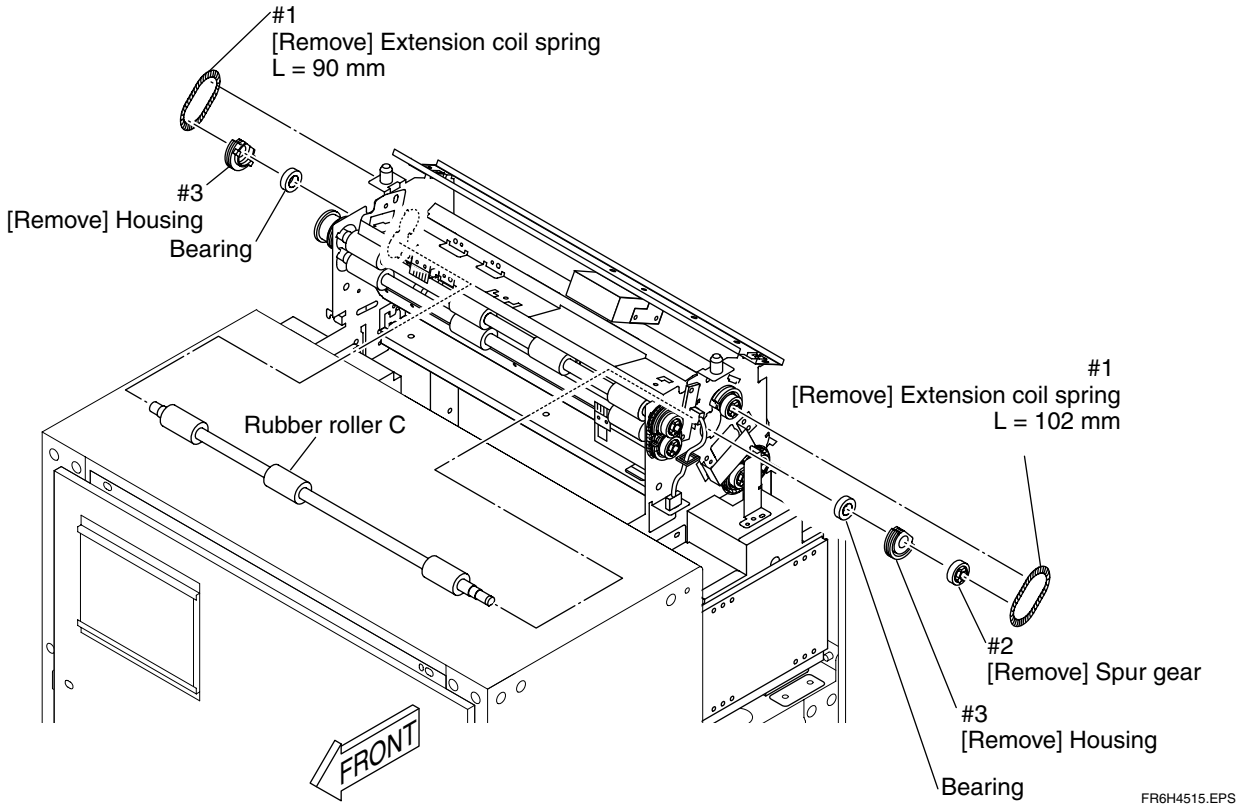
To remove the rubber roller D, the rubber roller C should be removed first.
The rubber roller D cannot be removed alone.

■ Removal Procedures

(1) Remove the timing belt.

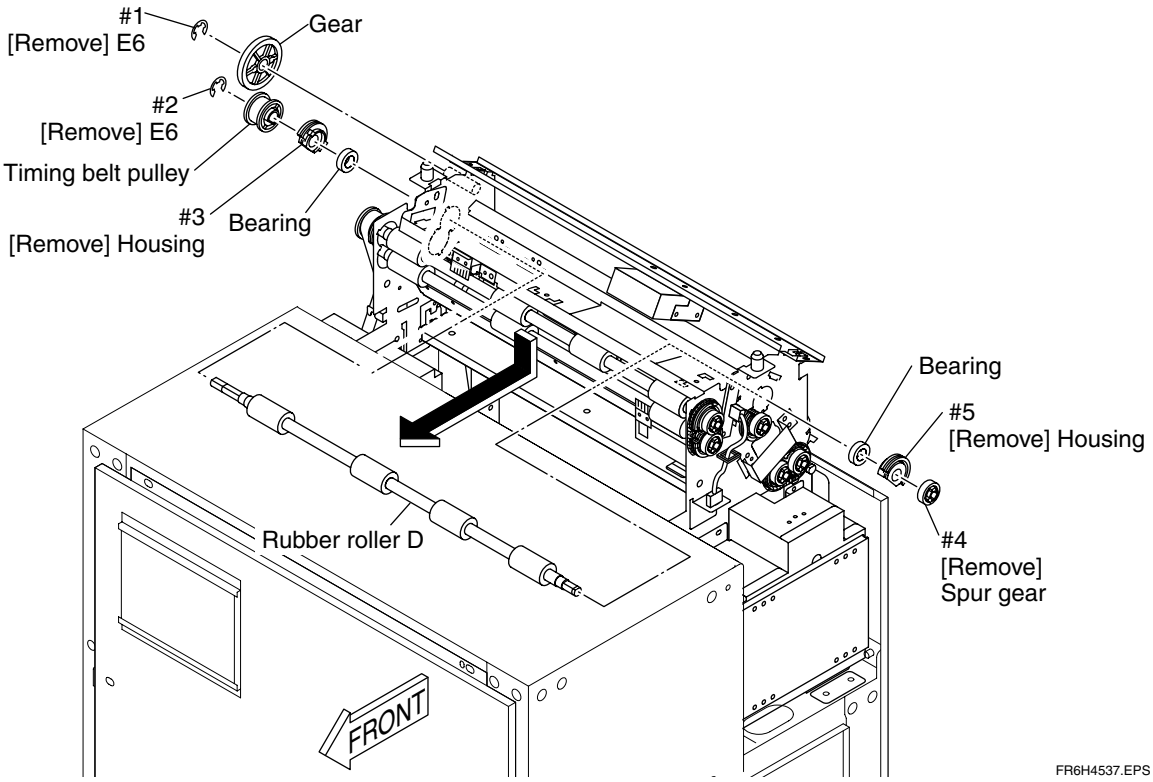
☞ "6.9 Timing Belt"

(2) Remove the rubber roller C.



FR6H4515.EPS

(3) Remove the rubber roller D.



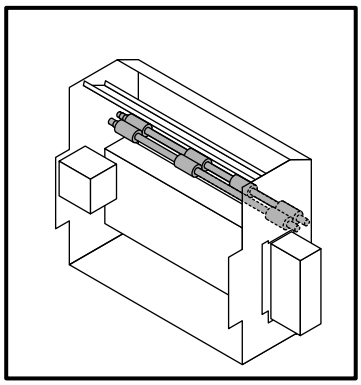
■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

The extension coil springs and rubber rollers differ in size depending on where they are attached. Use care not to confuse their locations.

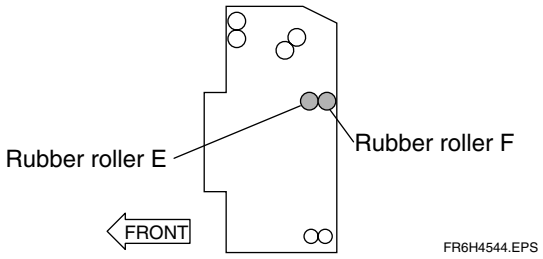
For reinstallation, reverse the removal steps.

6.13 Rubber Rollers E and F



FR6H4561.EPS

■ Rubber Roller Locations



FR6H4544.EPS

◇ ***REFERENCE*** ◇

To remove the rubber roller F, the rubber roller E should be removed first.
The rubber roller F cannot be removed alone.

■ Removal Procedures

(1) Remove the lamp assembly.
☞ "6.2 Lamp Assembly"

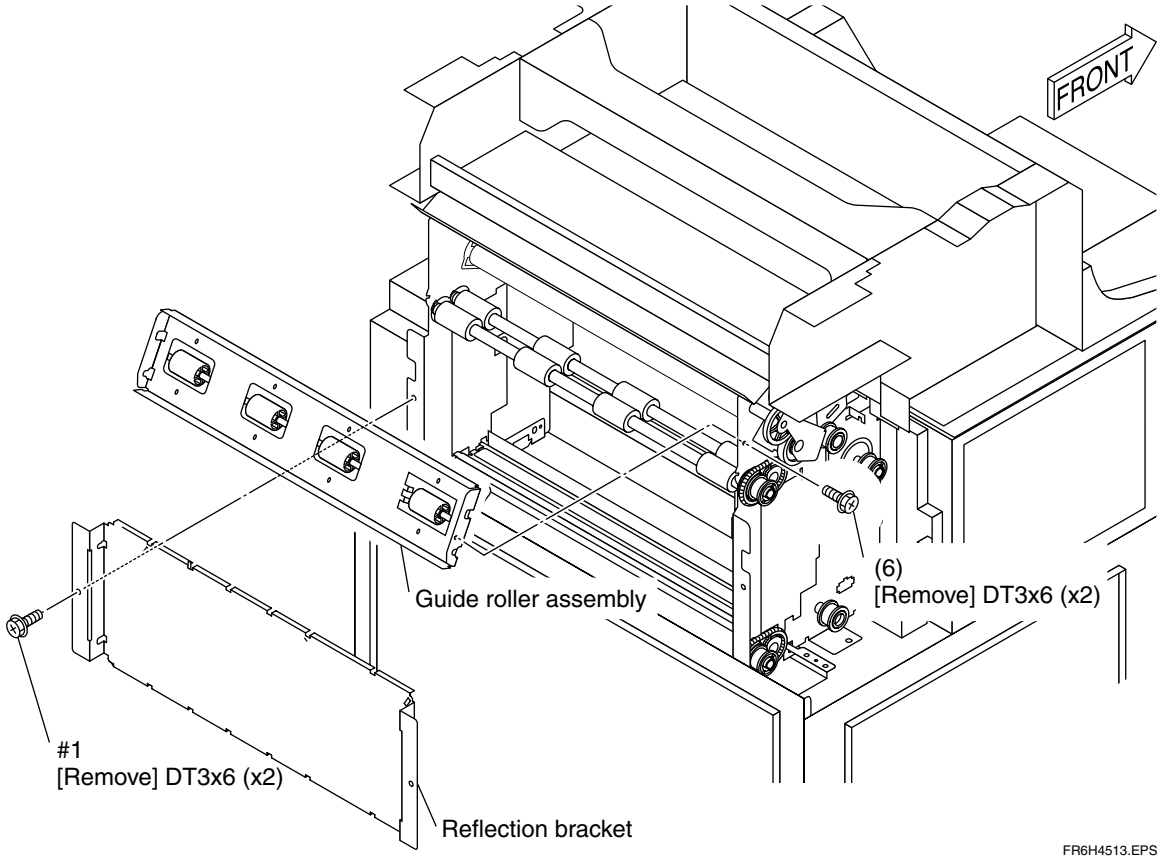
(2) Remove the duct box.
☞ "6.7 Duct Box"

(3) Loosen the timing belt.
☞ "6.9 Timing Belt"

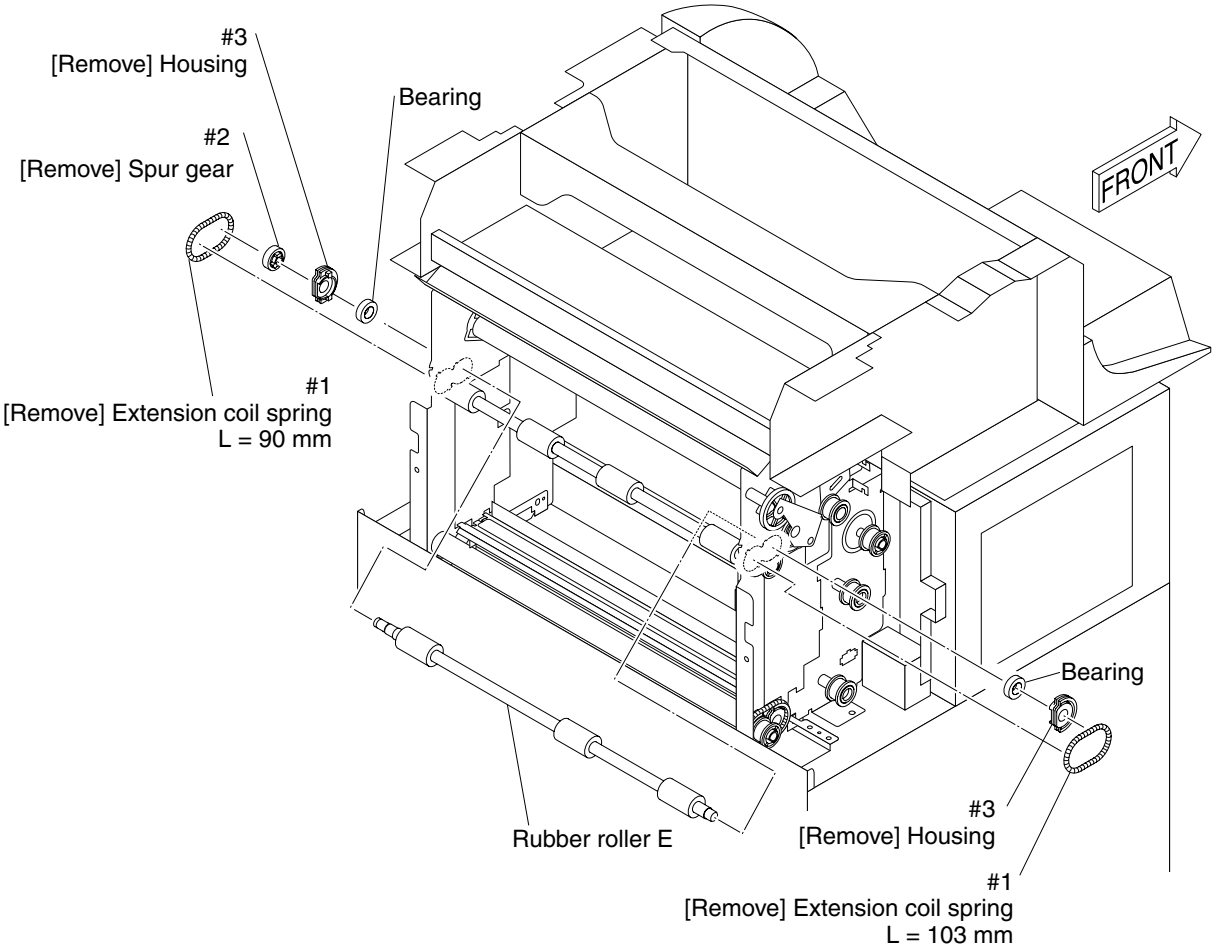
(4) Remove the rear cover.
☞ "3.1 Removing and Reinstalling the Covers"

(5) Remove the reflection bracket.

(6) Remove the guide roller assembly.

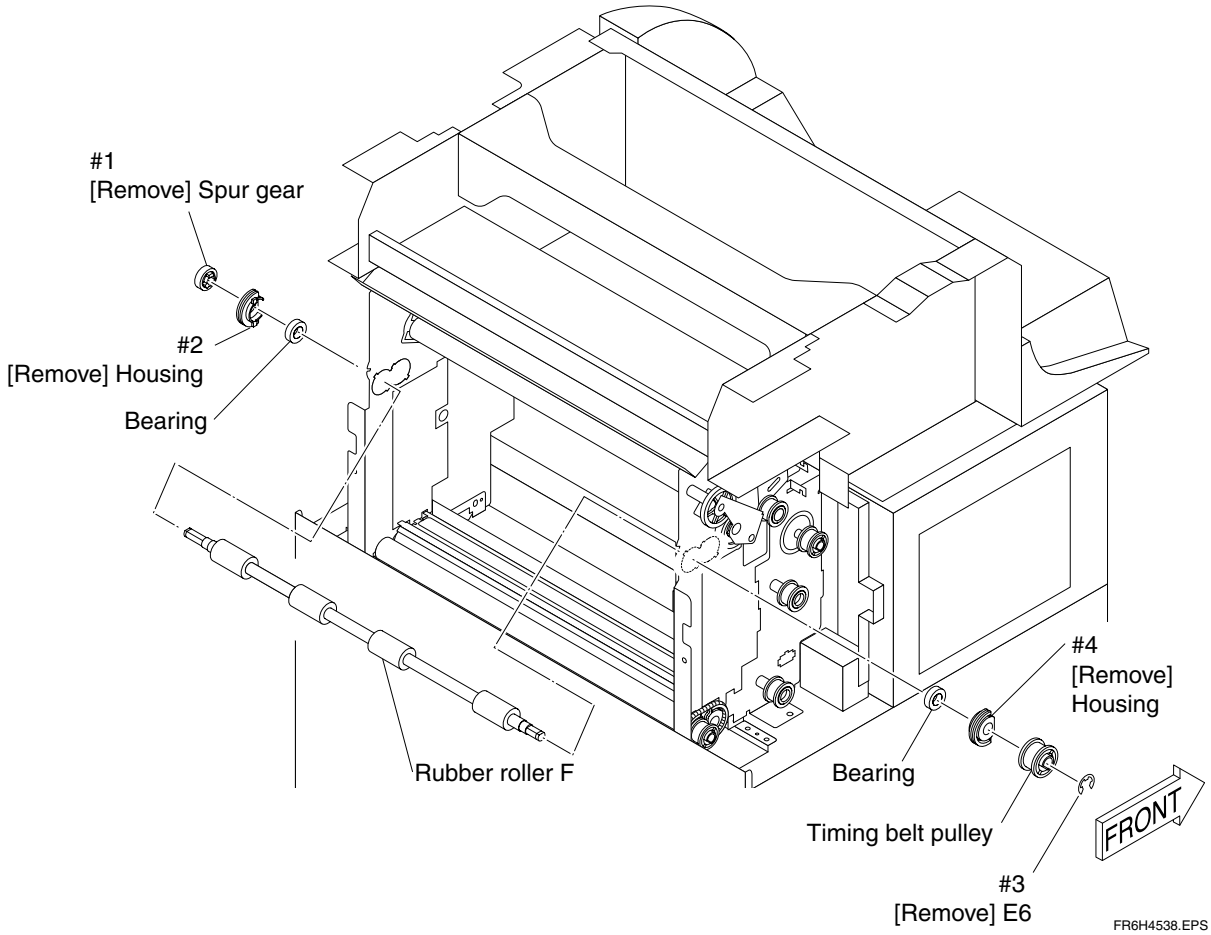


(7) Remove the rubber roller E.



FR6H4518.EPS

(8) Remove the rubber roller F.



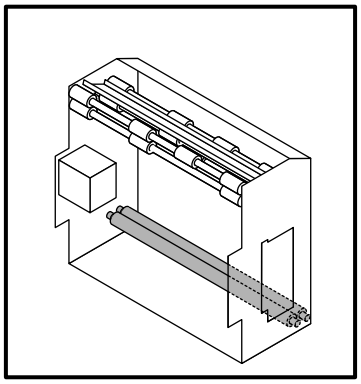
■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

◆ *INSTRUCTION* ◆

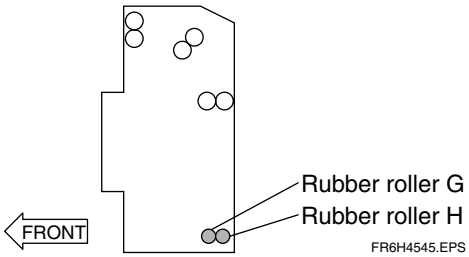
The extension coil springs and rubber rollers differ in size depending on where they are attached. Use care not to confuse their locations.

6.14 Rubber Rollers G and H



FR6H4562.EPS

■ Rubber Roller Locations



FR6H4545.EPS

◇ ***REFERENCE*** ◇

To remove the rubber roller H, the rubber roller G should be removed first.
The rubber roller H cannot be removed alone.

■ Removal Procedures

(1) Remove the lamp assembly.
☞ "6.2 Lamp Assembly"

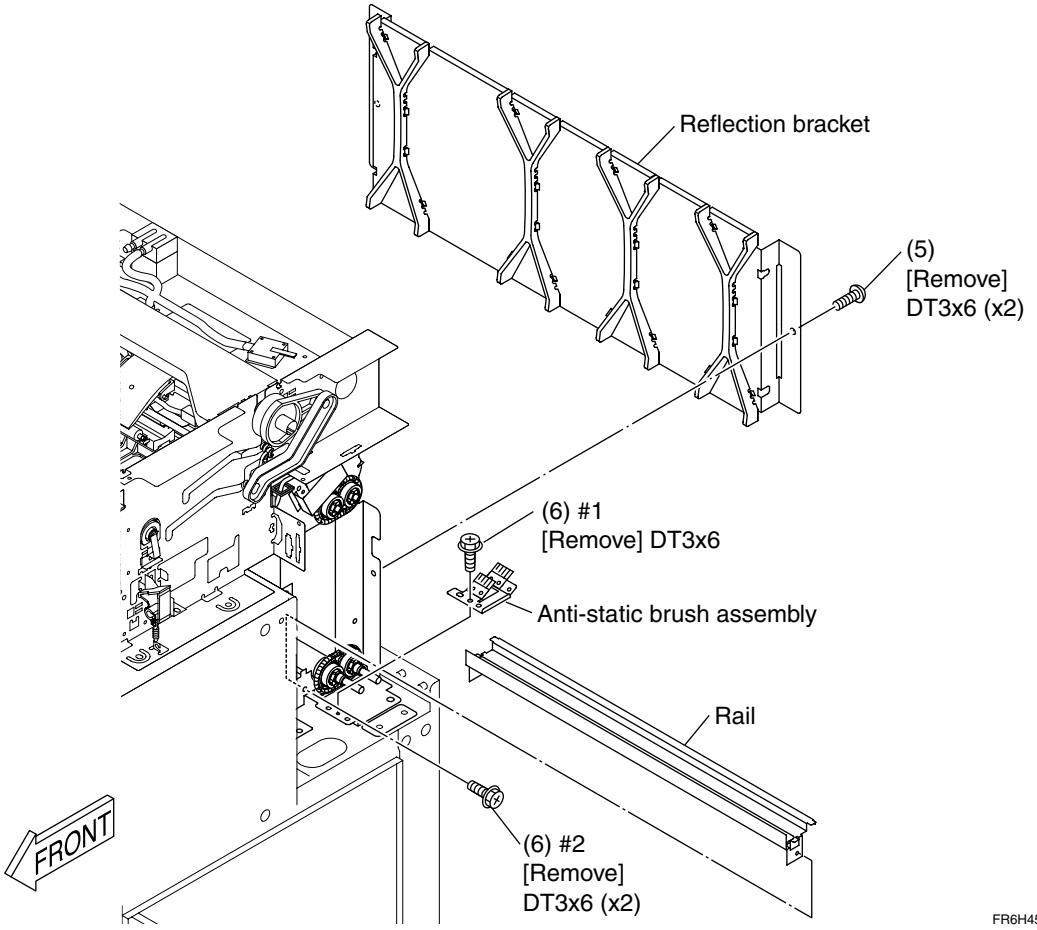
(2) Remove the duct box.
☞ "6.7 Duct Box"

(3) Loosen the timing belt.
☞ "6.9 Timing Belt"

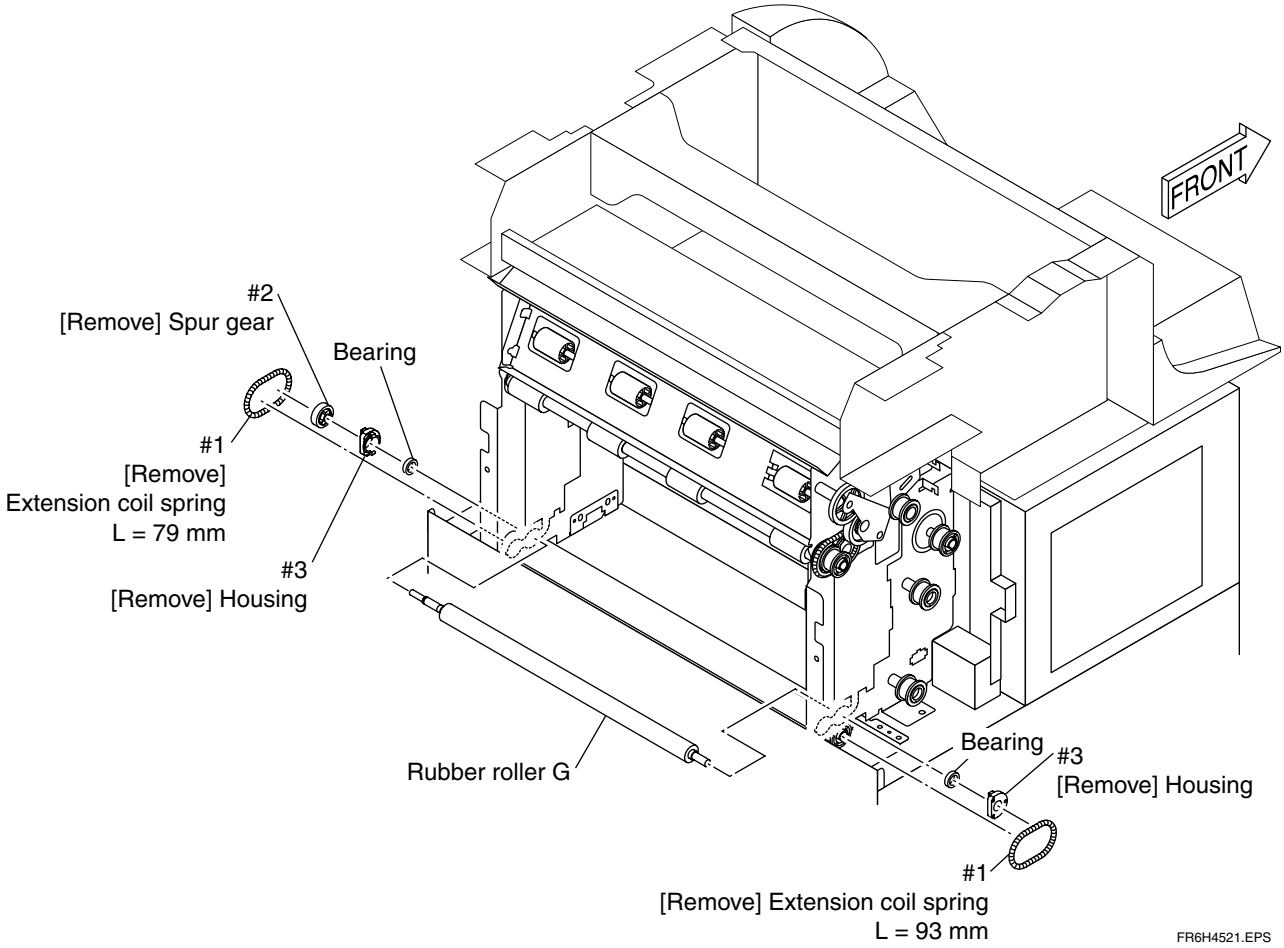
(4) Remove the rear cover.
☞ "3.1 Removing and Reinstalling the Covers"

(5) Remove the reflection bracket.

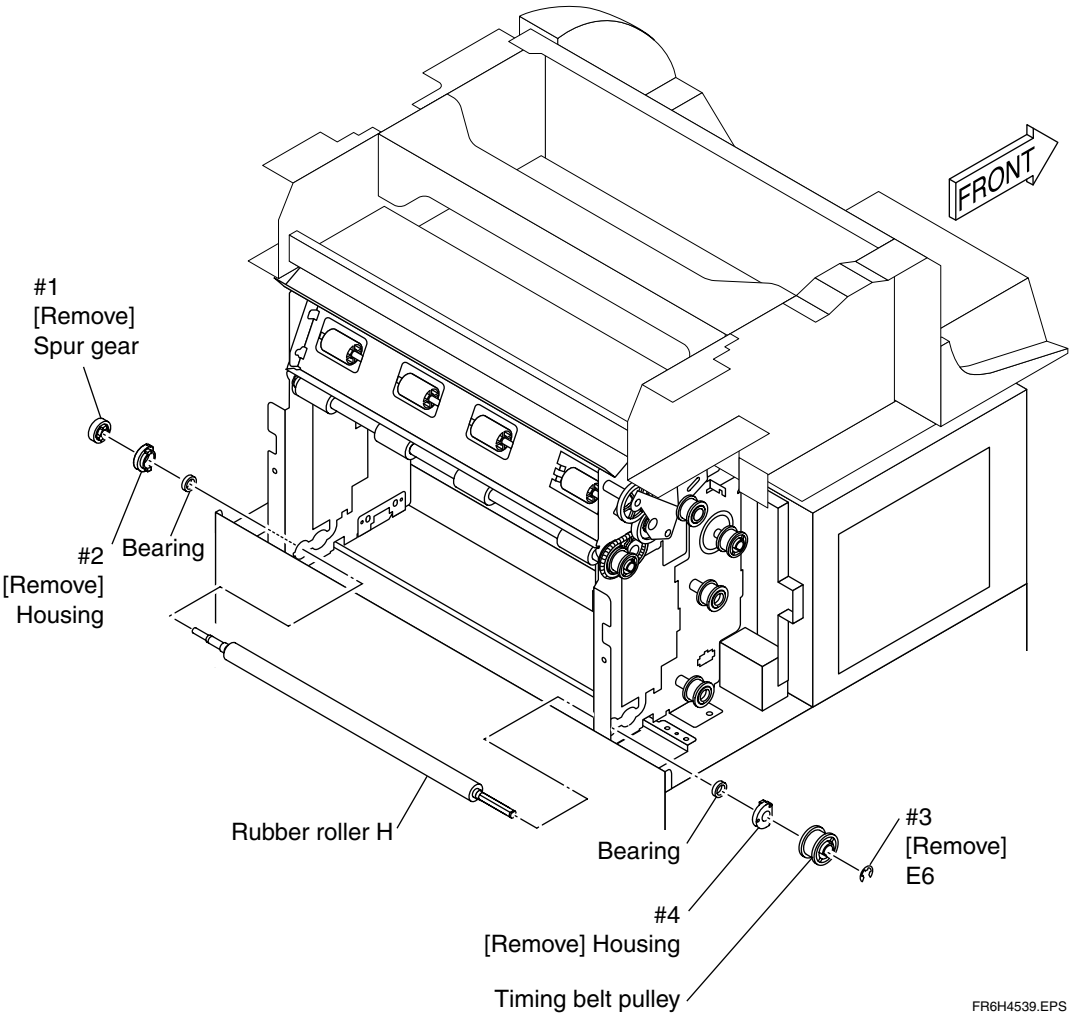
(6) Remove the rail.



(7) Remove the rubber roller G.



(8) Remove the rubber roller H.



■ Reinstallation Procedures

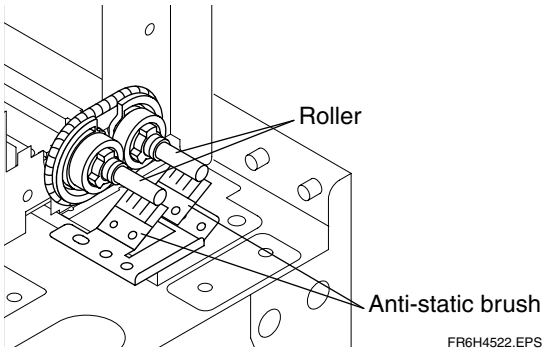
For reinstallation, reverse the removal steps.

◆ *INSTRUCTION* ◆

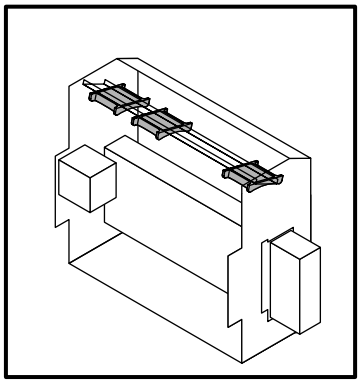
The extension coil springs and rubber rollers differ in size depending on where they are attached. Use care not to confuse their locations.

■ Check/Adjustment Procedures

• Make sure that the anti-static brush is brought into contact with the roller.

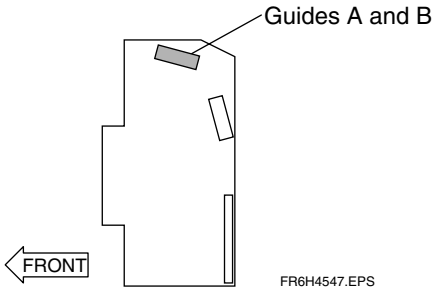


6.15 Guides A and B



FR6H4564.EPS

■ Guide Locations



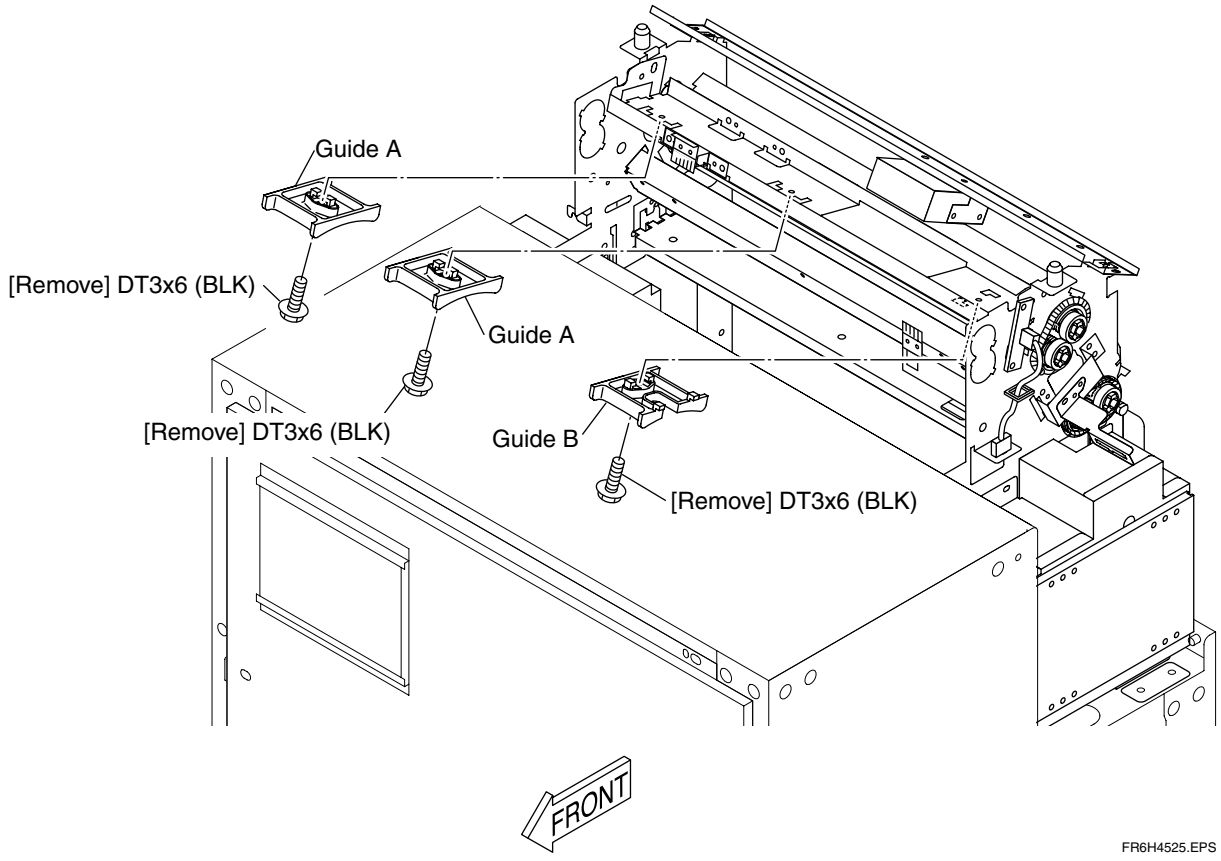
FR6H4547.EPS

■ Removal Procedures

(1) Remove the rubber rollers A and B.

☞ "6.11 Rubber Rollers A and B"

(2) Remove the guides A and B.



FR6H4525.EPS

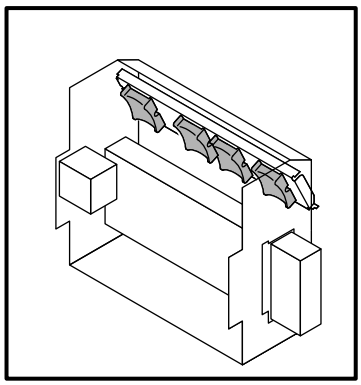
■ Reinstallation Procedures

◆ ***NOTE*** ◆

The guides A and B differ in shape.
When attaching them, use care not to confuse their locations.

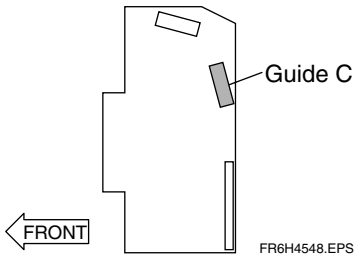
For reinstallation, reverse the removal steps.

6.16 Guide C



FR6H4565.EPS

■ Guide Locations



FR6H4548.EPS

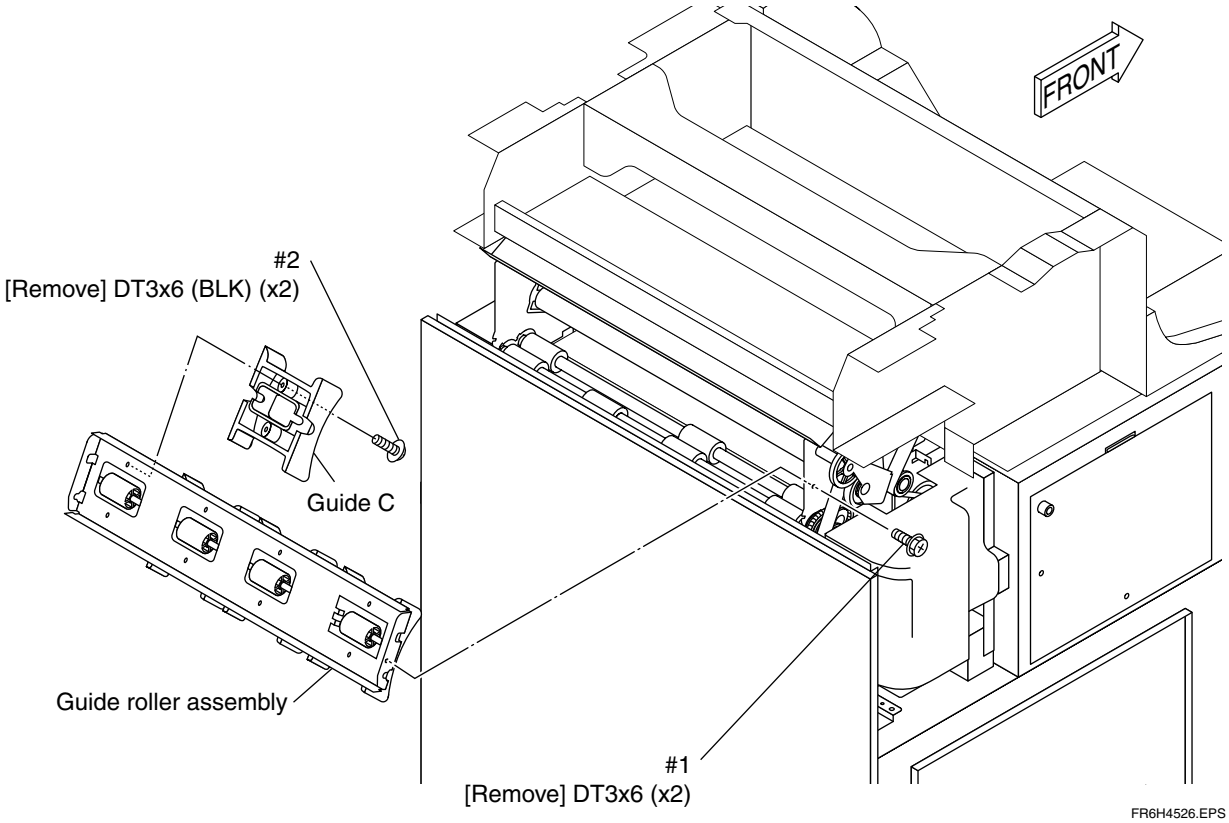
■ Removal Procedures

(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top cover

☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the guide C.

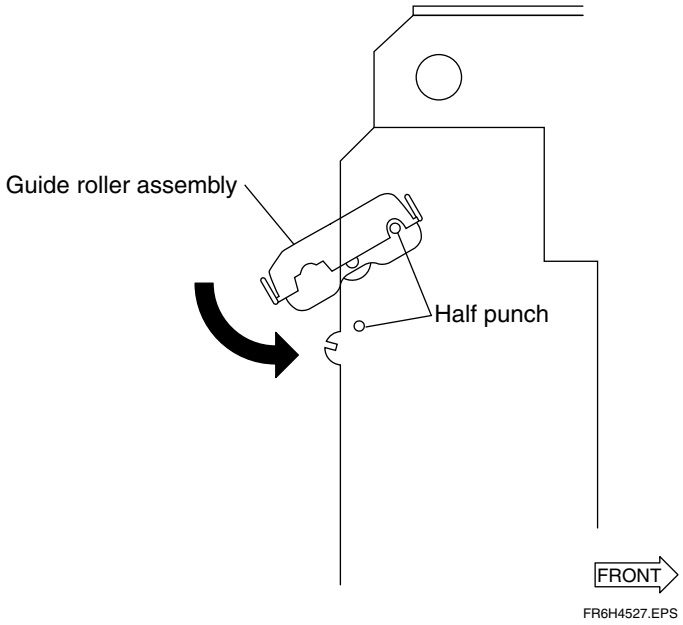


FR6H4526.EPS

■ Reinstallation Procedures

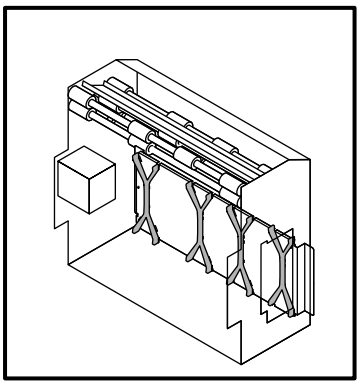
◆ *NOTE* ◆

The guide roller assembly should be installed as illustrated below.



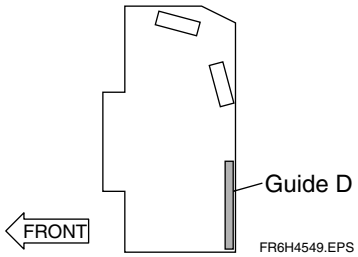
For reinstallation, reverse the removal steps.

6.17 Guide D



FR6H4566.EPS

■ Guide Locations



FR6H4549.EPS

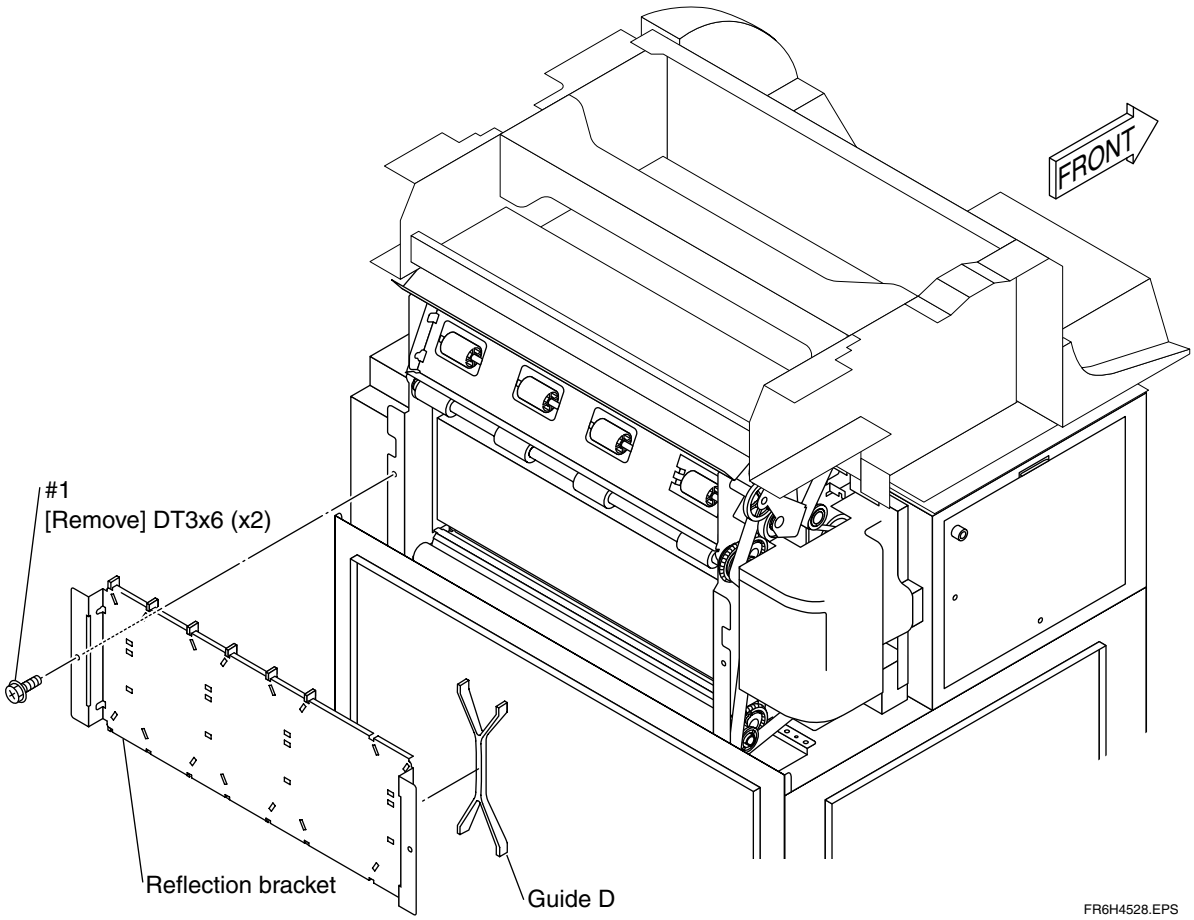
■ Removal Procedures

(1) Remove the covers.

- Front cover
- Right- and left-hand side covers
- Top cover
- Rear cover

☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the guide D.



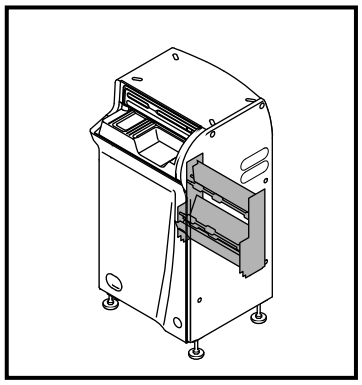
FR6H4528.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

7. Removing and Reinstalling the Side-Positioning Conveyor

7.1 Side-Positioning Conveyor



FR6H4651.EPS

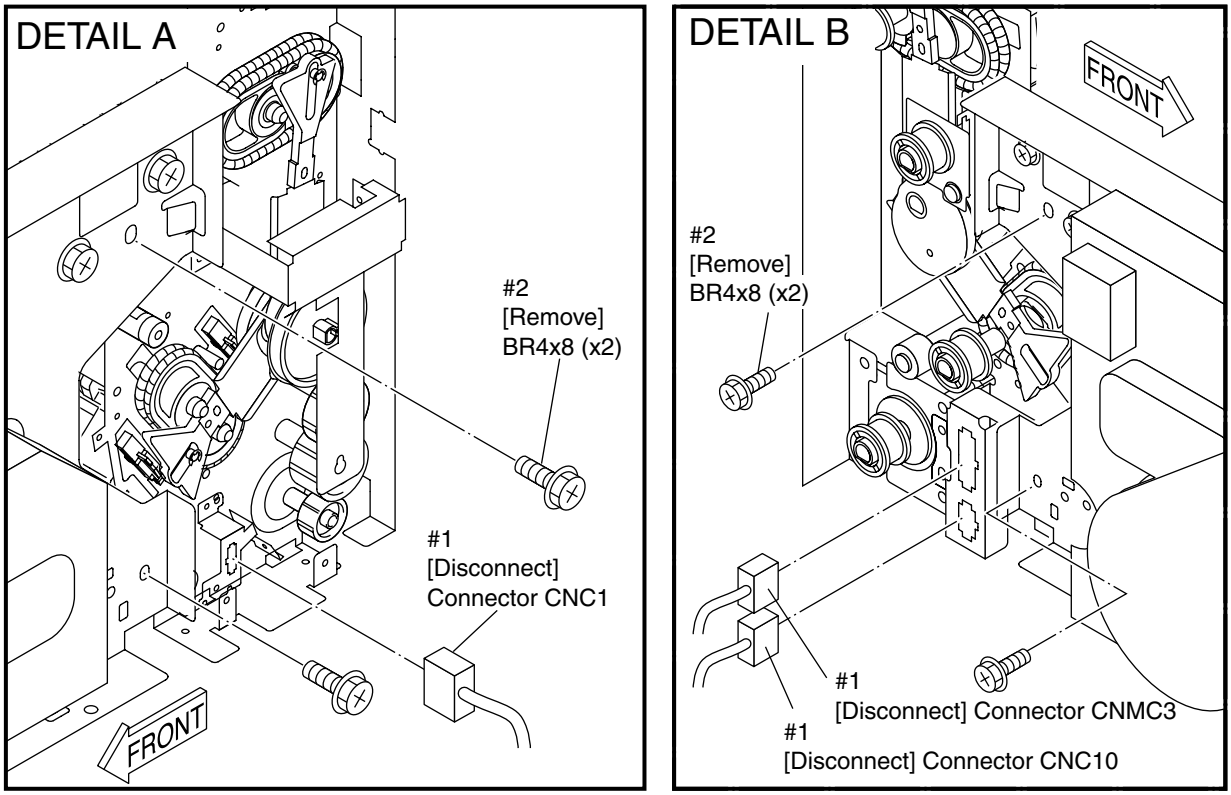
■ Removal Procedures

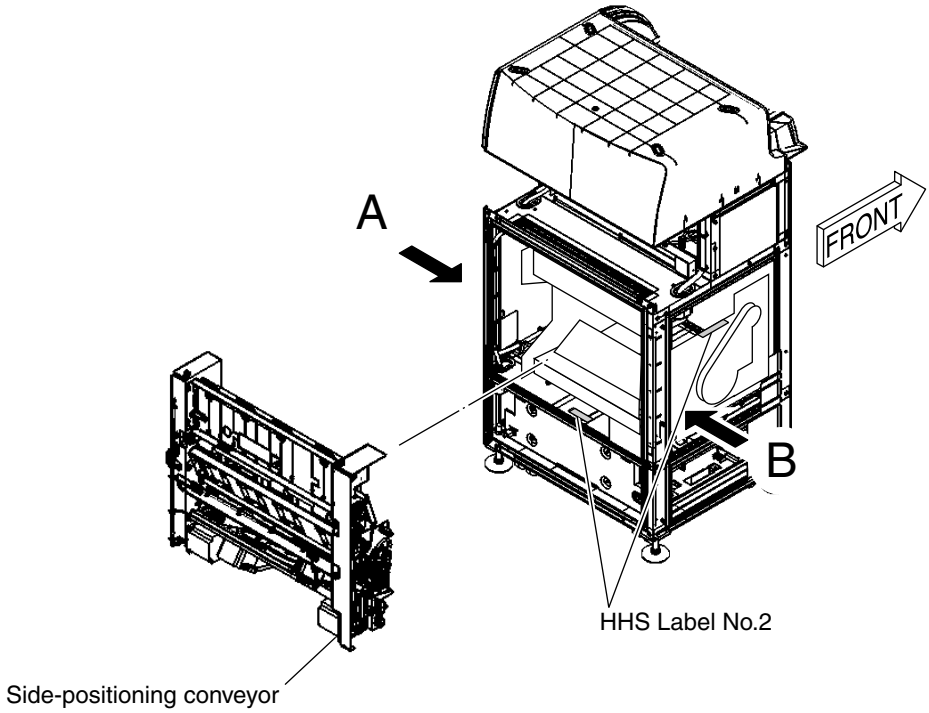
(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Rear cover

☞ “3.1 Removing and Reinstalling the Covers”

(2) Remove the side-positioning conveyor.



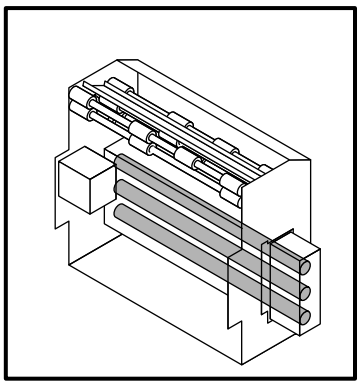


FR6H4601.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

7.2 Timing Belt



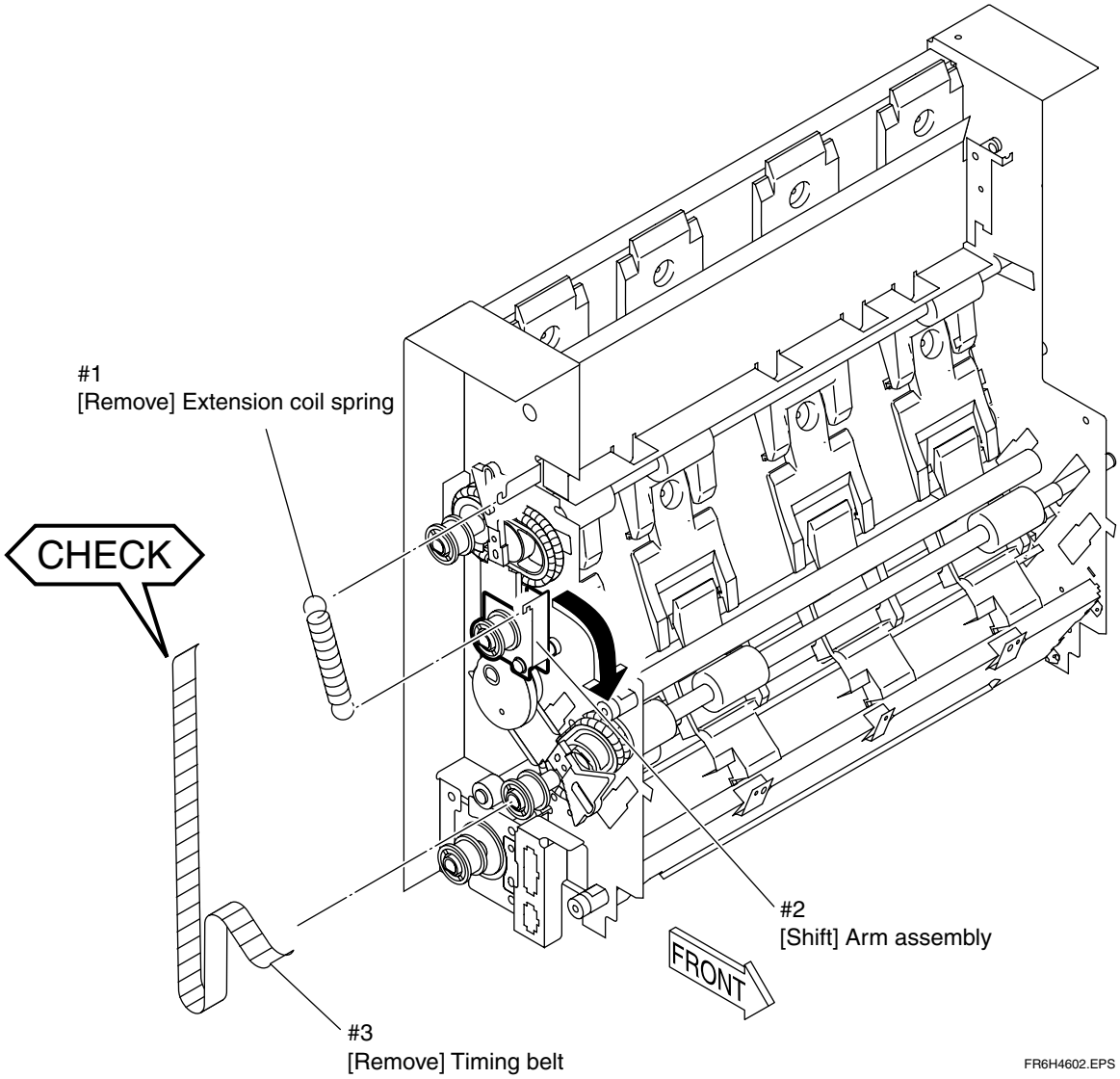
FR6H4552.EPS

■ Removal Procedures

(1) Remove the side-positioning conveyor.

☞ “7.1 Side-Positioning Conveyor”

(2) Remove the timing belt.



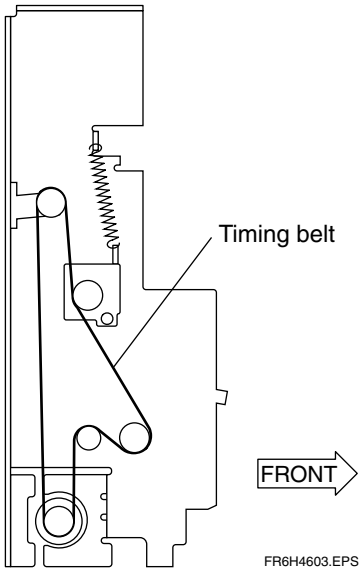
FR6H4602.EPS

■ Reinstallation Procedures

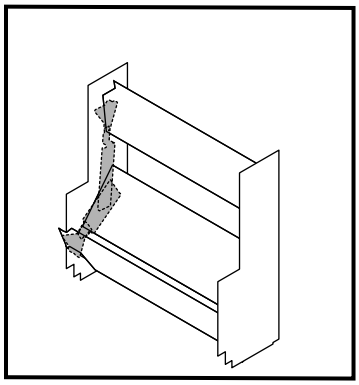
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

• Check the mounting position of the timing belt.

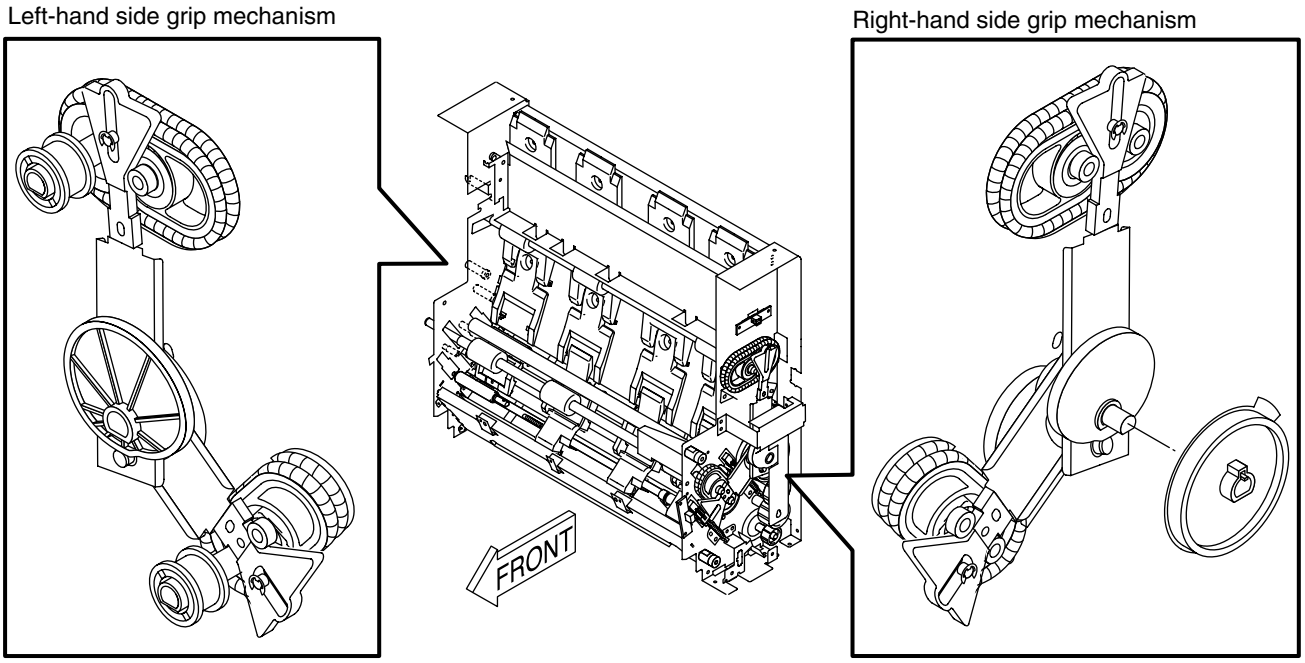


7.3 Grip Mechanism (Left-Hand Side)



FR6H4653.EPS

■ Grip Mechanism Locations



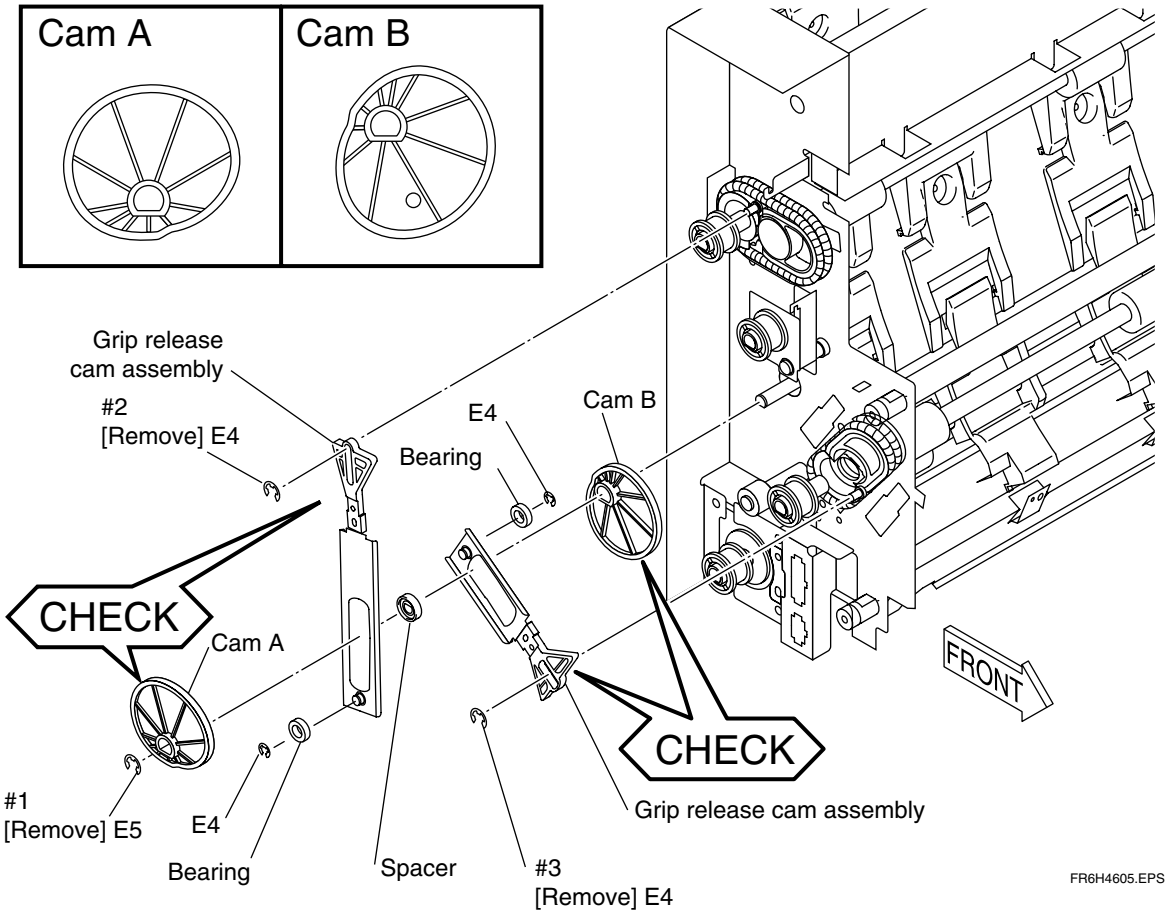
FR6H4604.EPS

■ Removal Procedures

(1) Remove the timing belt.

☞ "7.2 Timing Belt"

(2) Remove the grip release cam assembly.



■ Reinstallation Procedures

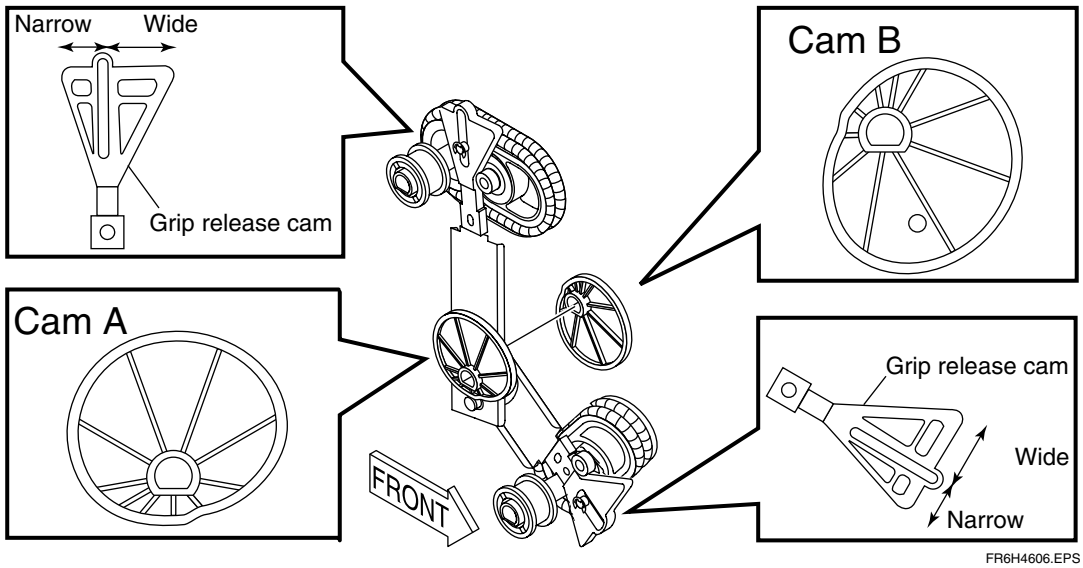
◆ *INSTRUCTION* ◆

The cams differ in shape depending on where they are attached. When attaching the cams, use care not to confuse their locations.

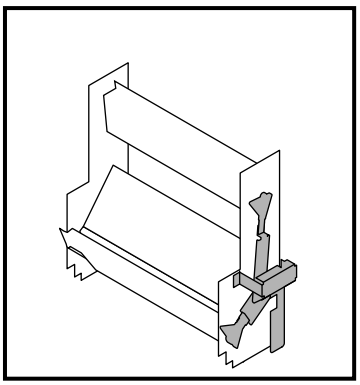
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

• Make sure that the cams are attached correctly.



7.4 Grip Mechanism (Right-Hand Side)



FR6H4654.EPS

■ Grip Mechanism Locations

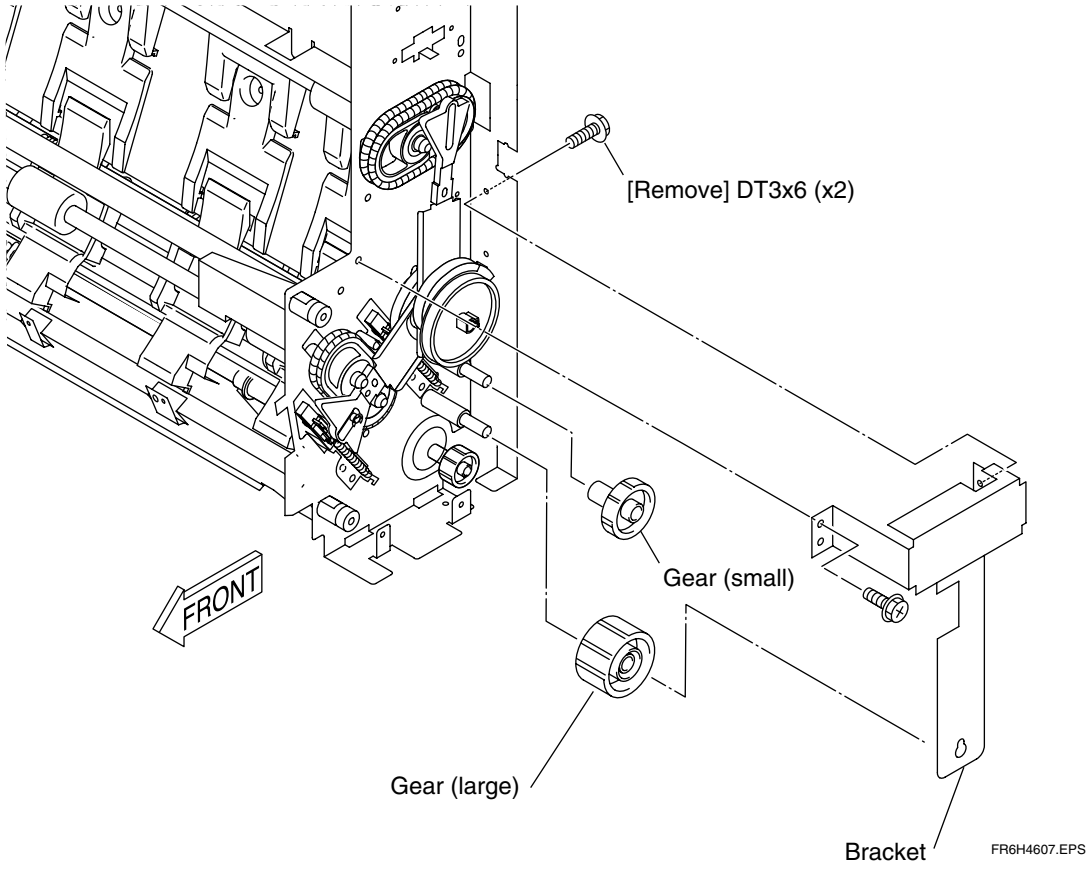
☞ “7.3 Grip Mechanism (Left-Hand Side)”

■ Removal Procedures

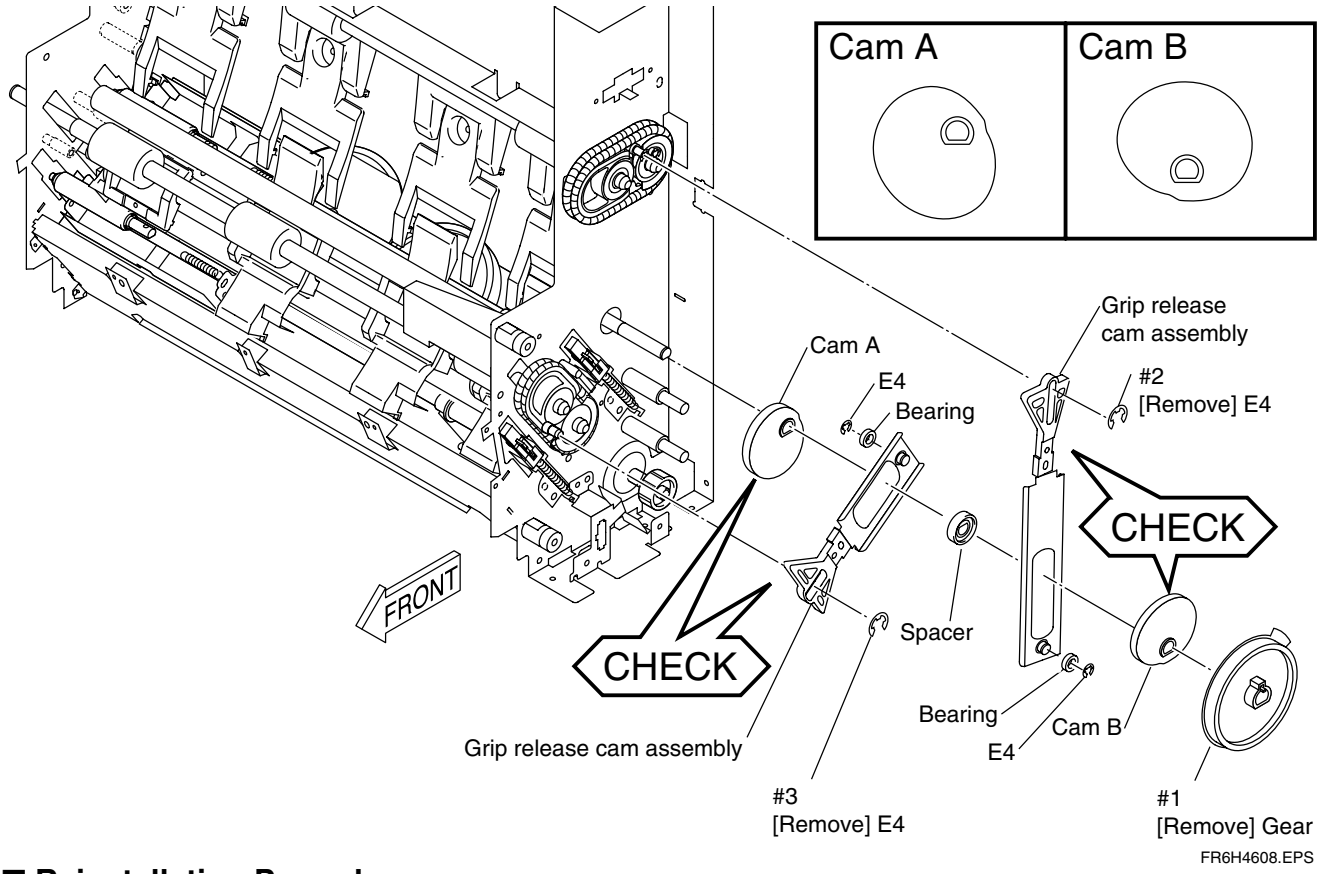
(1) Remove the side-positioning conveyor.

☞ “7.1 Side-Positioning Conveyor”

(2) Remove the bracket.



(3) Remove the grip release cam assembly.



FR6H4608.EPS

■ Reinstallation Procedures

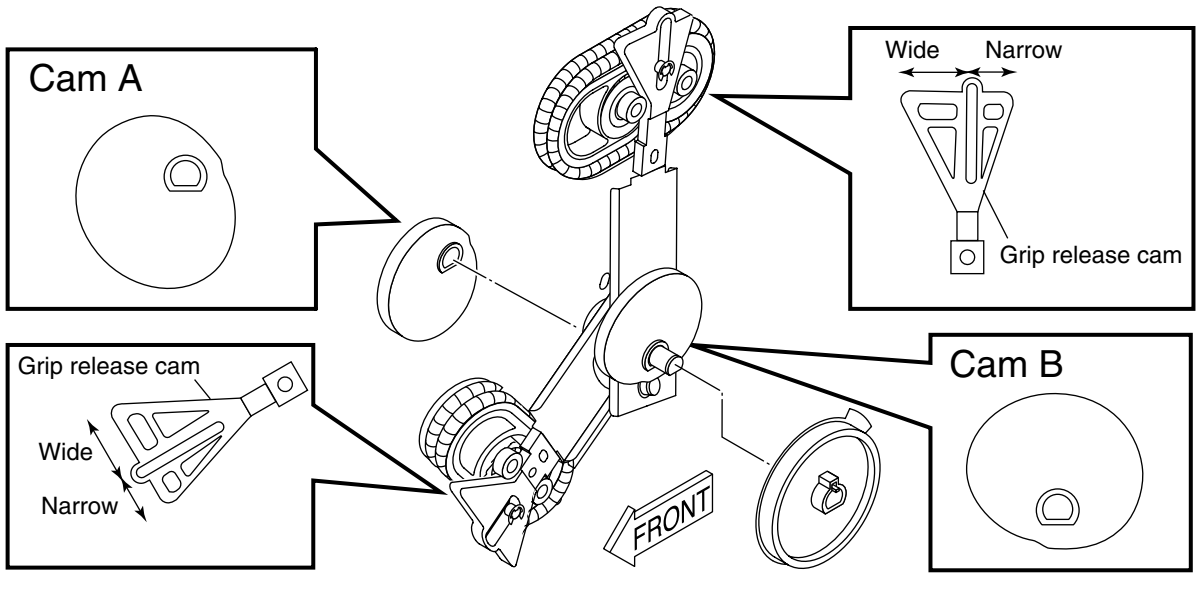
◆ ***INSTRUCTION*** ◆

The cams differ in shape depending on where they are attached. When attaching the cams, use care not to confuse their locations.

For reinstallation, reverse the removal steps.

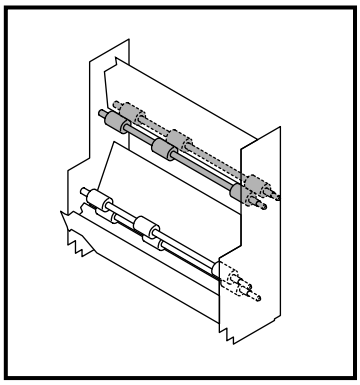
■ Check/Adjustment Procedures

• Make sure that the cams are attached correctly.



FR6H4609.EPS

7.5 Upper Grip Roller



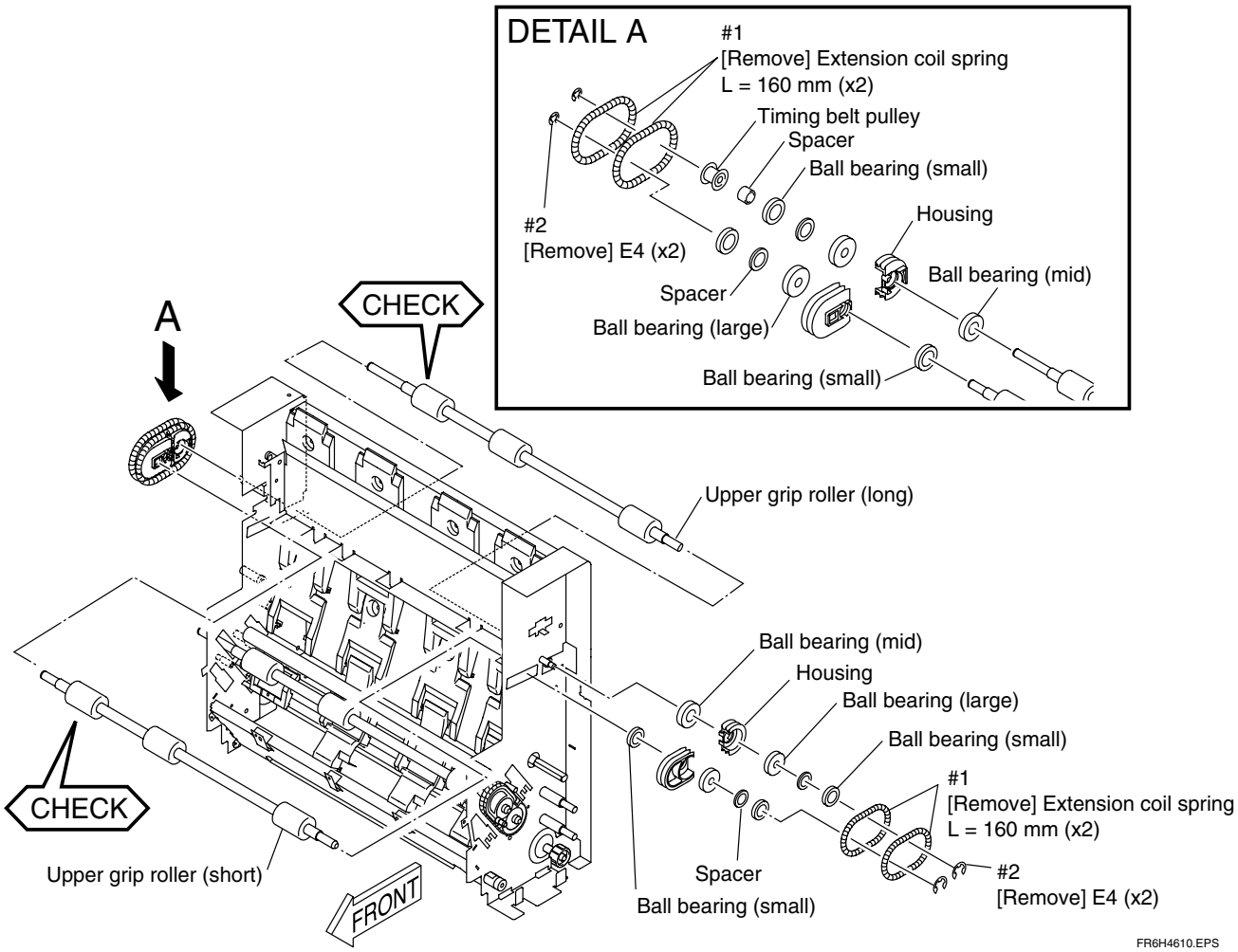
FR6H4655.EPS

■ Removal Procedures

(1) Remove the grip mechanism (left-hand side).
☞ "7.3 Grip Mechanism (Left-Hand Side)"

(2) Remove the grip mechanism (right-hand side)
☞ "7.4 Grip Mechanism (Right-Hand Side)"

(3) Remove the upper grip roller (long) and upper grip roller (short).



FR6H4610.EPS

■ Reinstallation Procedures

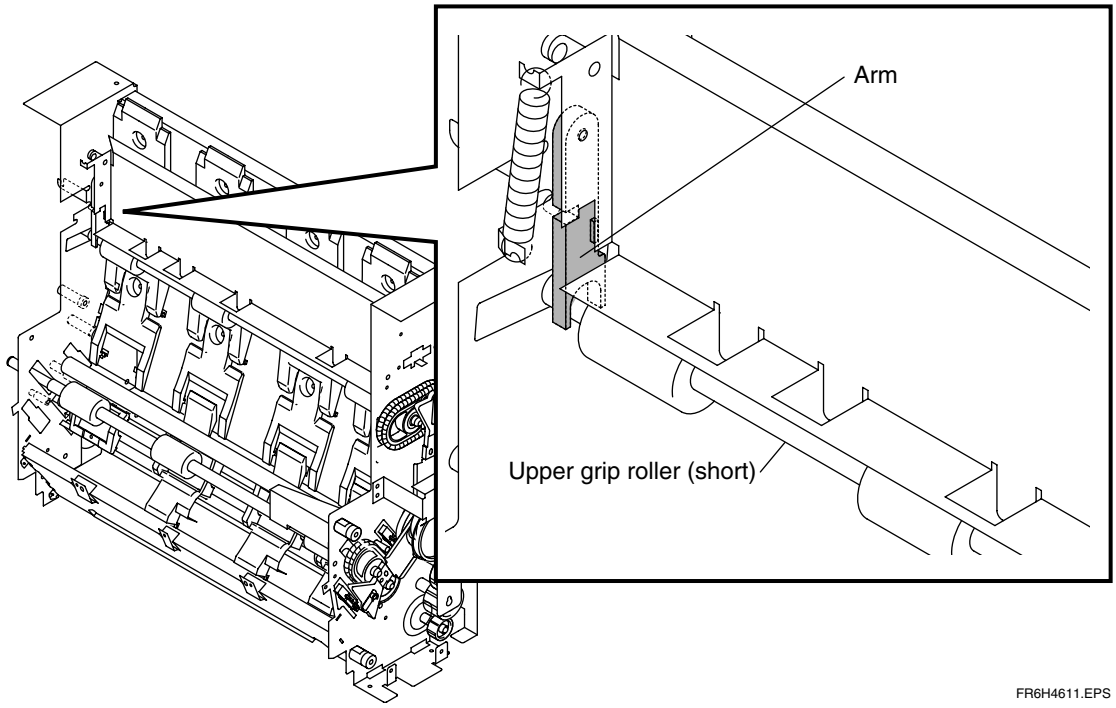
◆ *INSTRUCTION* ◆

The upper grip rollers differ in length depending on where they are attached. When attaching the upper grip rollers, use care not to confuse their locations.

For reinstallation, reverse the removal steps.

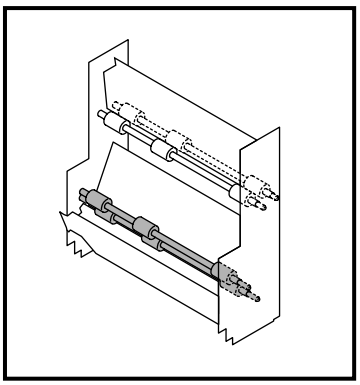
■ Check/Adjustment Procedures

- Check the attachment locations of the upper grip rollers.
- Make sure that the upper grip roller (short) is fitted into the notch of the arm.



FR6H4611.EPS

7.6 Lower Grip Roller



FR6H4656.EPS

■ Removal Procedures

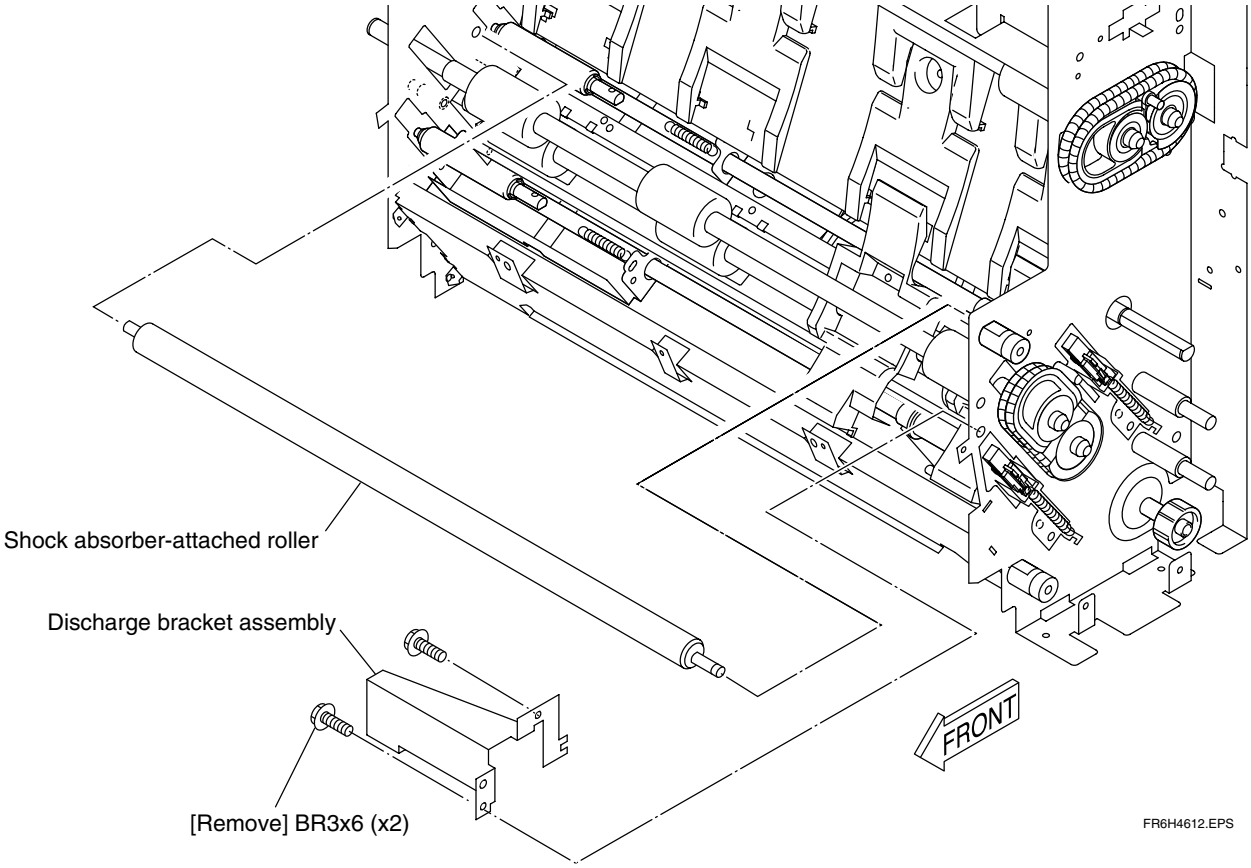
(1) Remove the grip mechanism (left-hand side).

☞ "7.3 Grip Mechanism (Left-Hand Side)"

(2) Remove the grip mechanism (right-hand side)

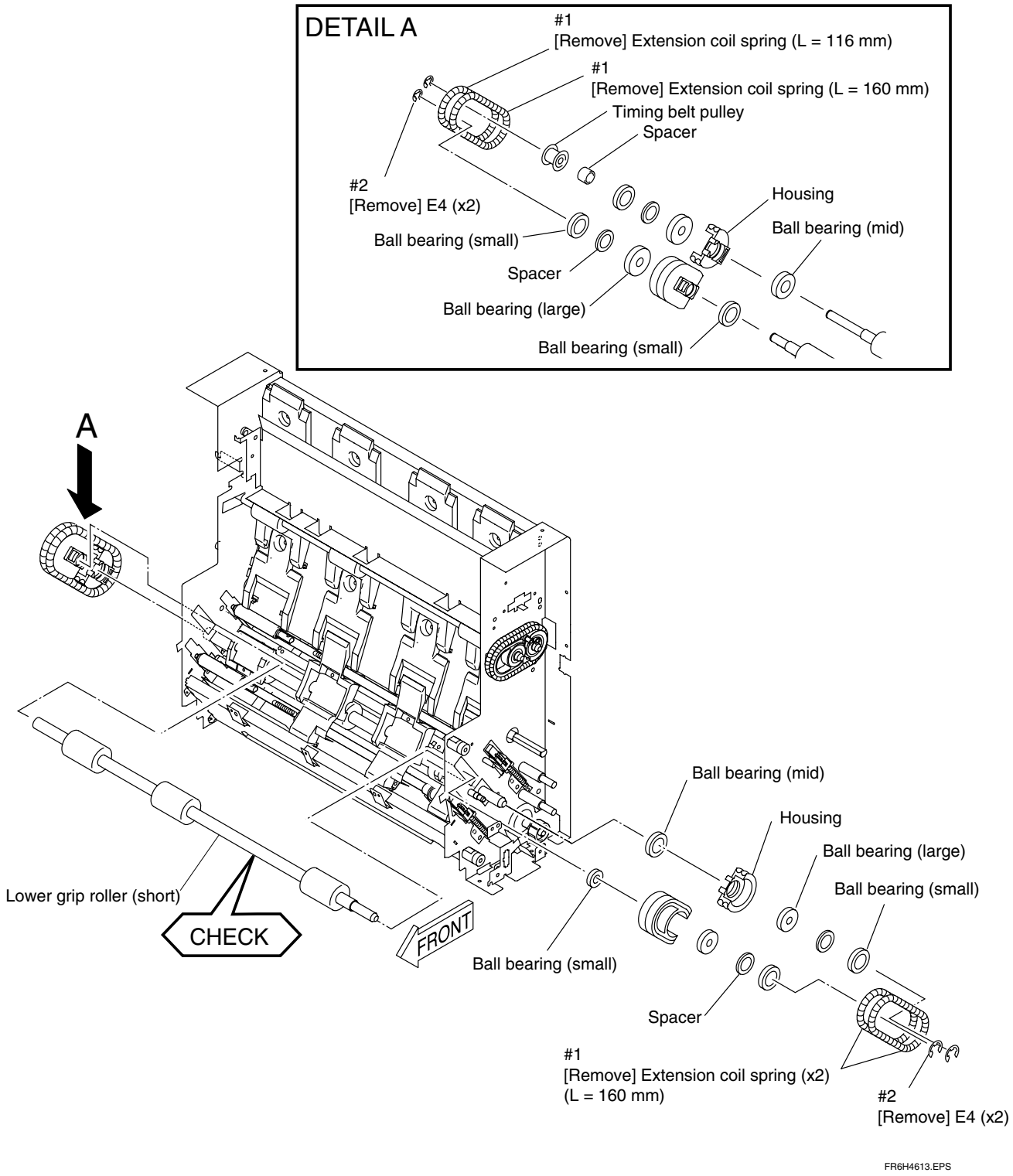
☞ "7.4 Grip Mechanism (Right-Hand Side)"

(3) Remove the shock absorber-attached roller.



FR6H4612.EPS

(4) Remove the lower grip roller (short).

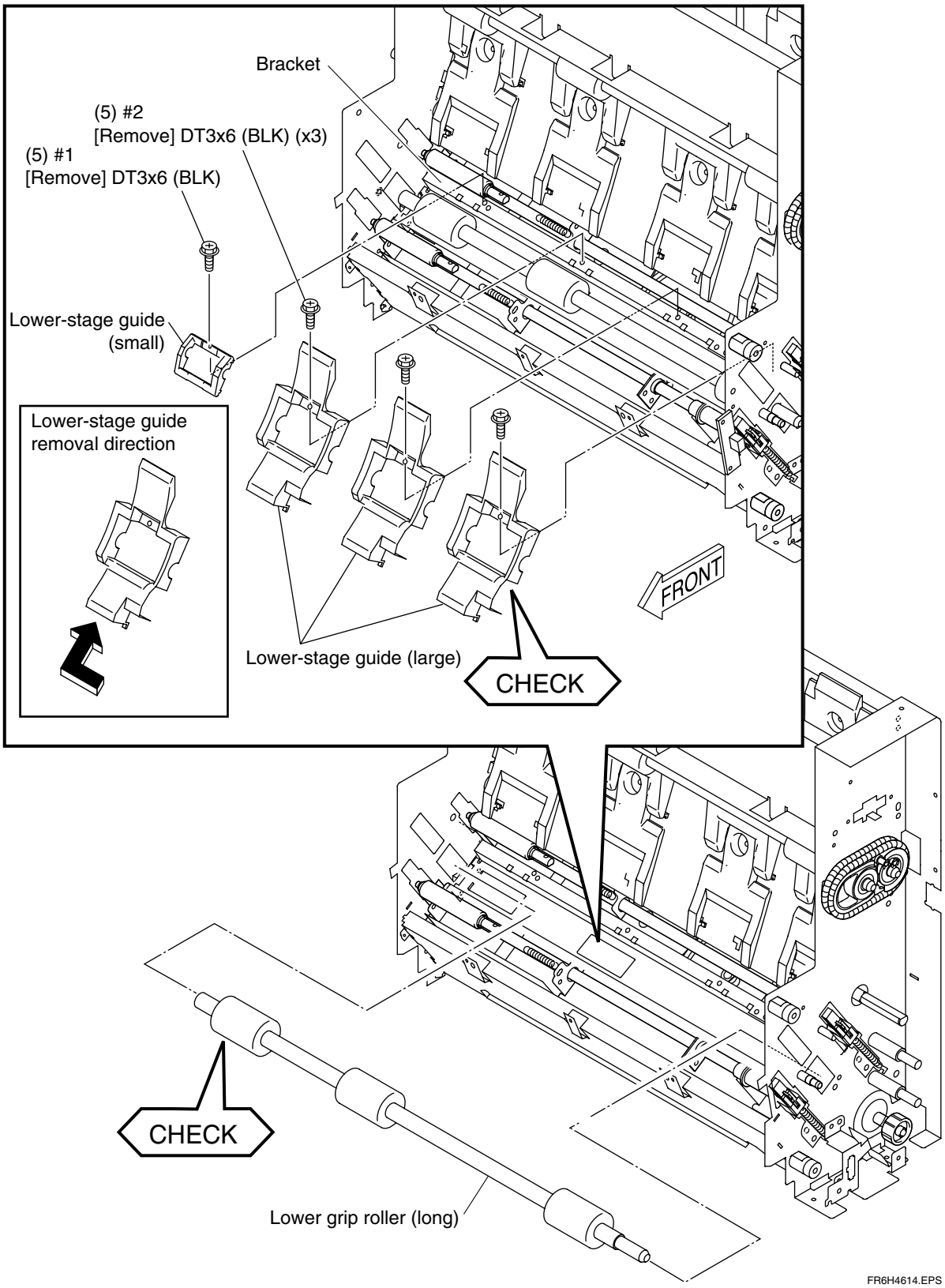


◆ ***NOTE*** ◆

The lower-stage guides should be removed in accordance with their removal direction.

(5) Remove the lower-stage guides (large) and (small).

(6) Remove the lower grip roller (long).



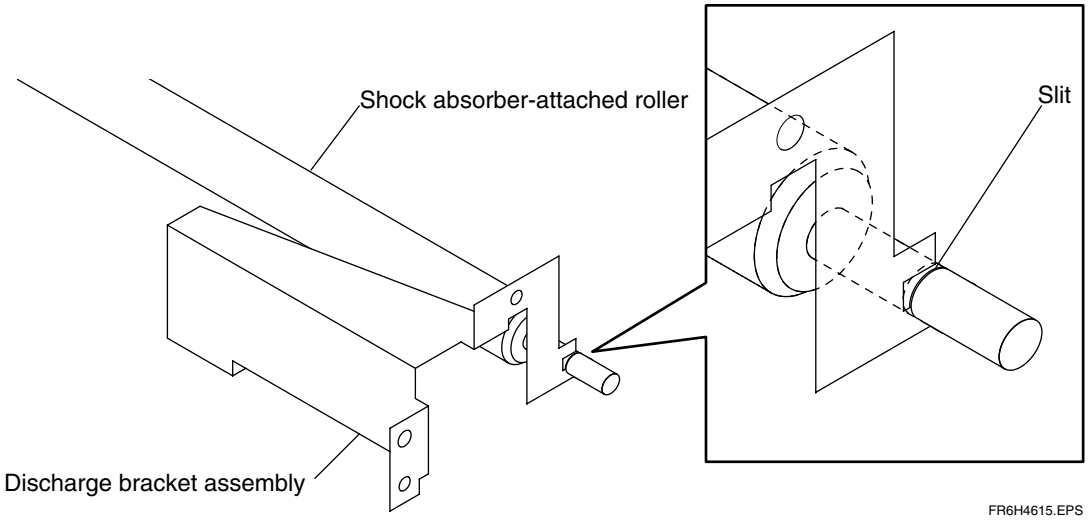
■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

The extension coil springs and lower grip rollers differ in length depending on where they are attached. When attaching the extension coil springs and lower grip rollers, use care not to confuse their locations.

◆ *NOTE* ◆

When attaching the shock absorber-attached roller, ensure that the notch of the discharge bracket assembly is fitted into the slit.

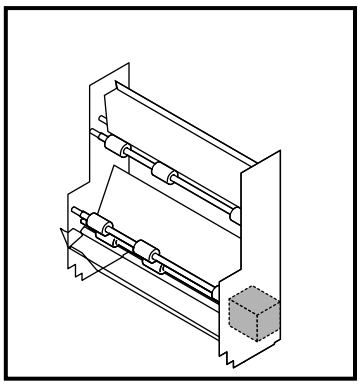


For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

- Check the attachment locations of the lower grip rollers.
- Make sure that the latch of the lower-stage guide is locked to the bracket.

7.7 Motor (MC2)

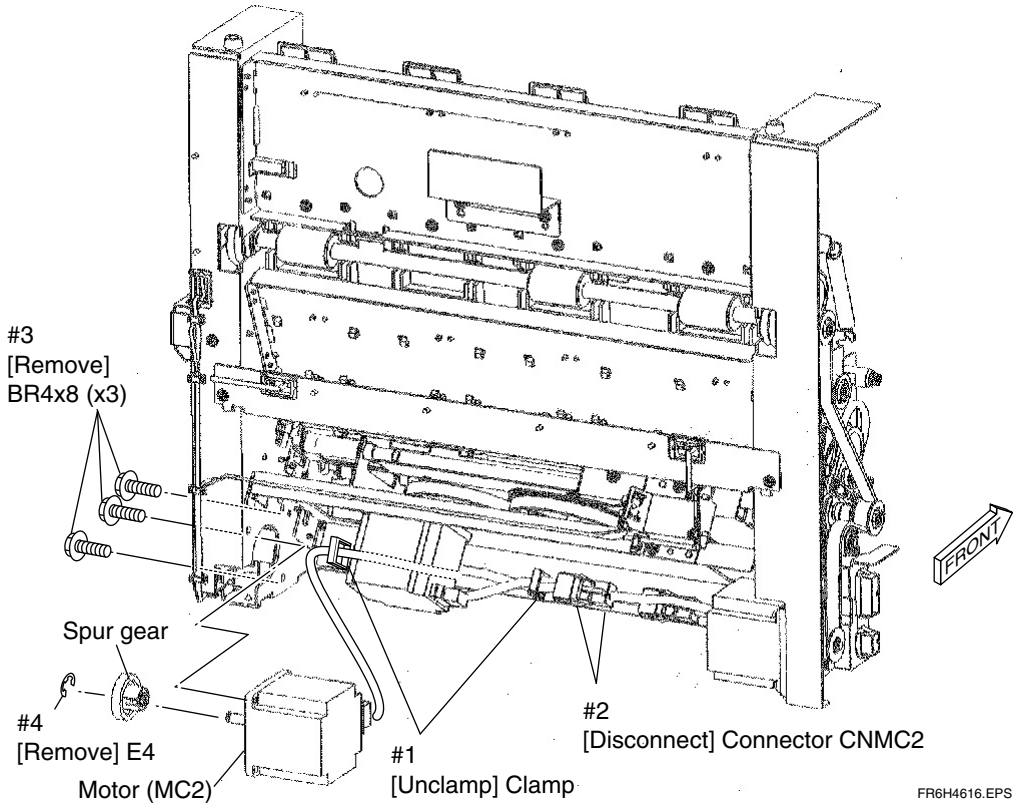


FR6H4657.EPS

■ Removal Procedures

(1) Remove the side-positioning conveyor.
☞ "7.1 Side-Positioning Conveyor"

(2) Remove the motor (MC2).

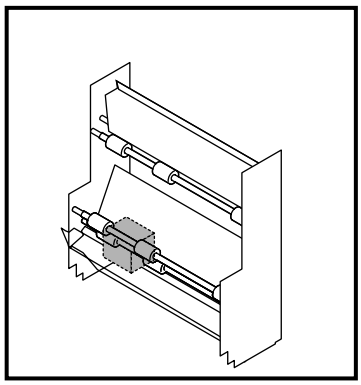


FR6H4616.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

7.8 Motor (MC3)



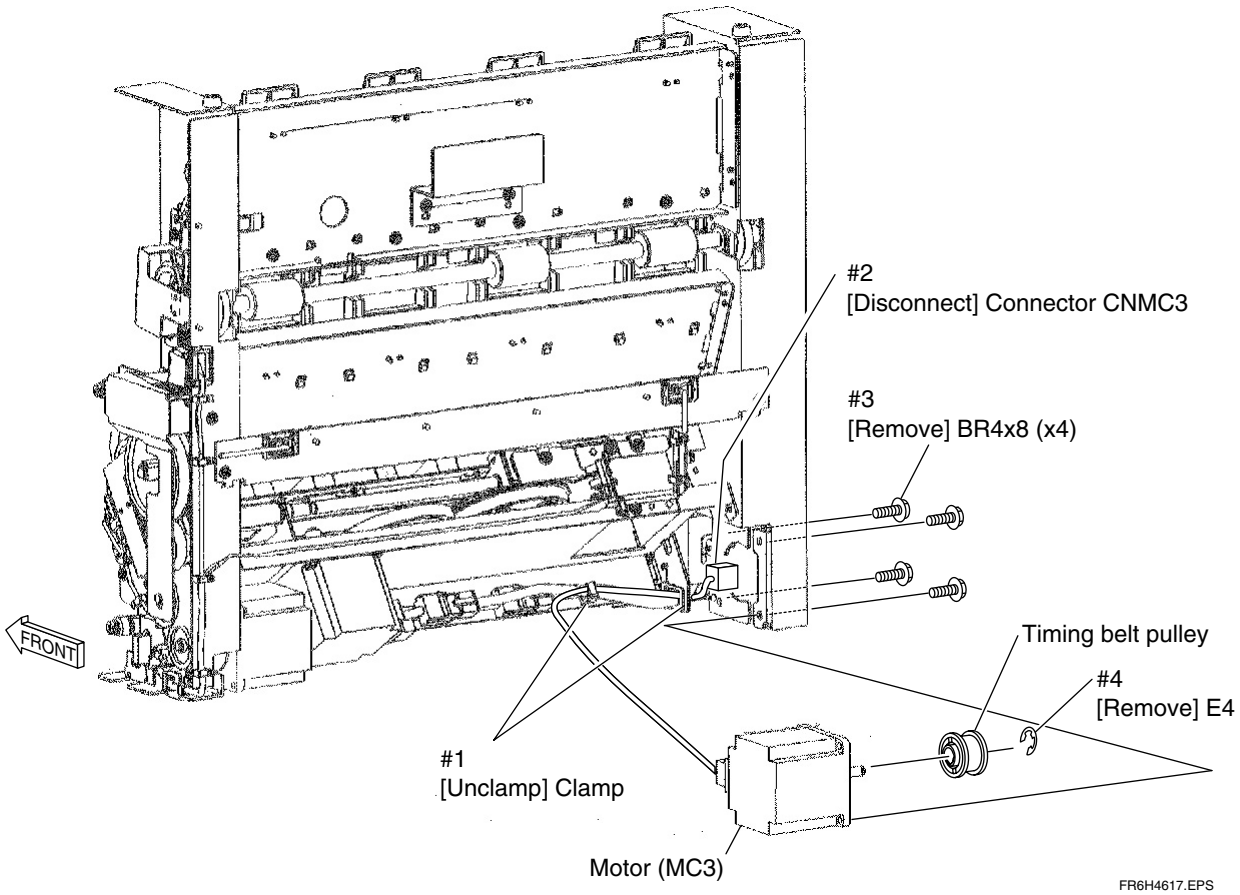
FR6H4658.EPS

■ Removal Procedures

(1) Remove the timing belt.

☞ "7.2 Timing Belt"

(2) Remove the motor (MC3).

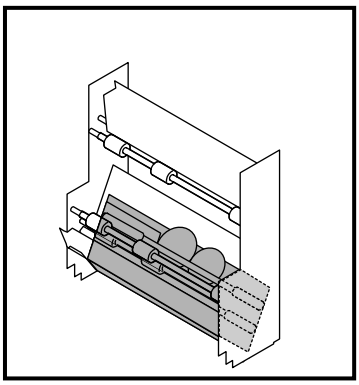


FR6H4617.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

7.9 Latch Driver



FR6H4659.EPS

■ Removal Procedures

(1) Remove the motor (MC2).

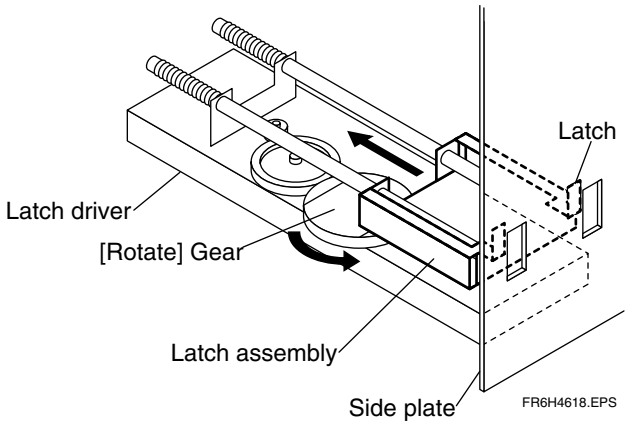
☞ "7.7 Motor (MC2)"

(2) Remove the motor (MC3).

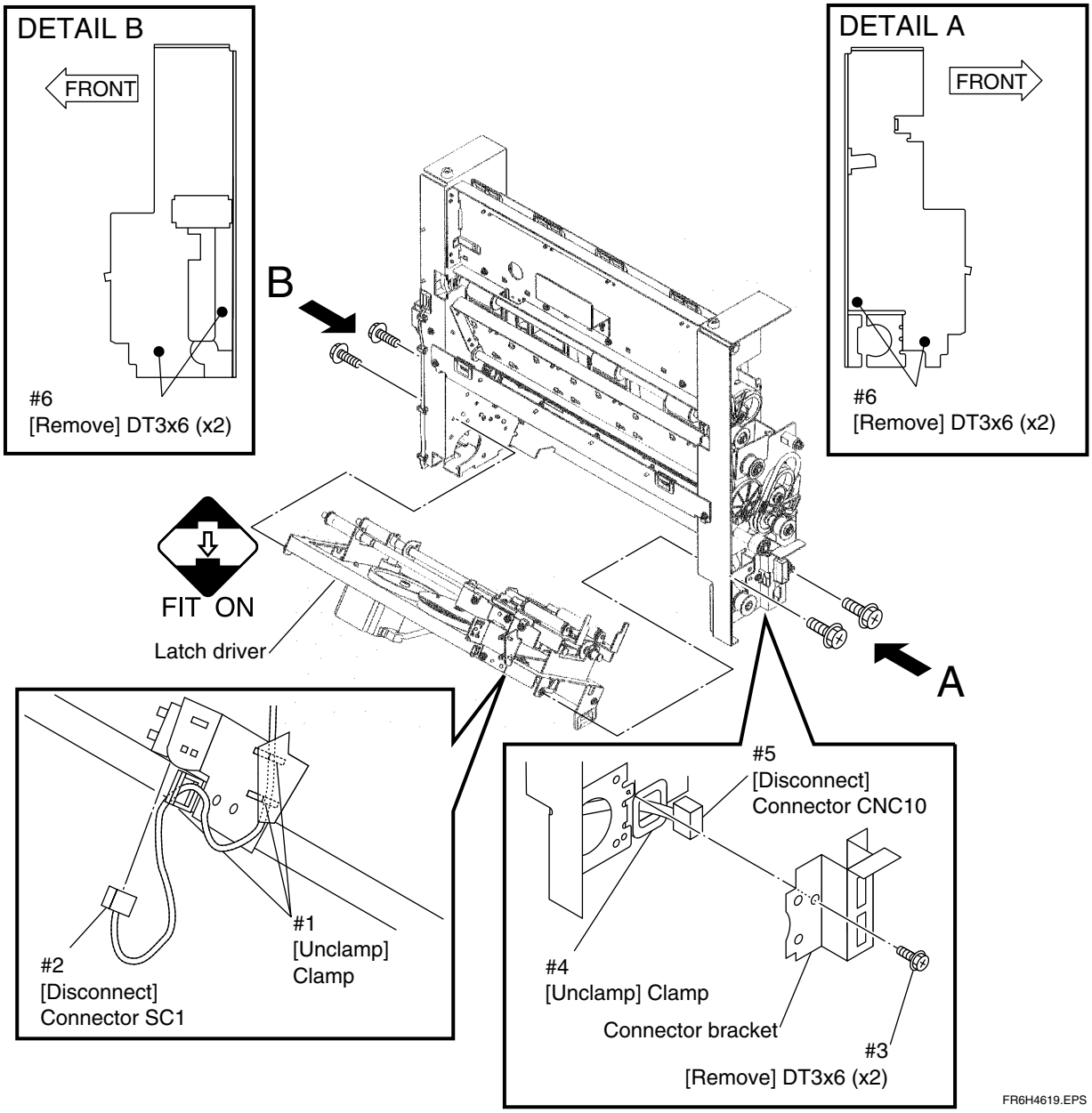
☞ "7.8 Motor (MC3)"

◆ *NOTE* ◆

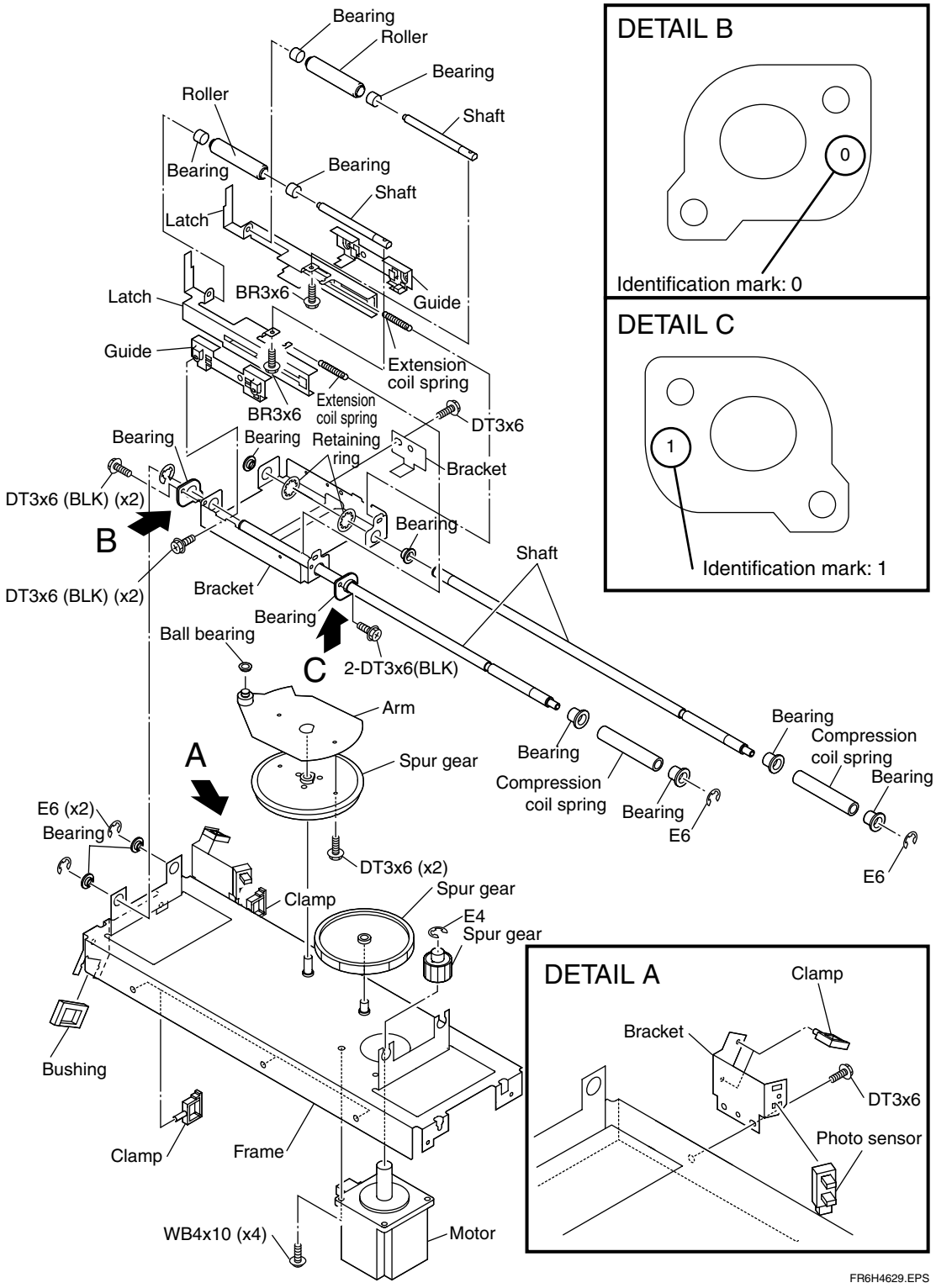
To remove the latch driver, manually rotate the gear until the latches of the latch assembly are positioned inside the side plate of the machine.



(3) Remove the latch driver.

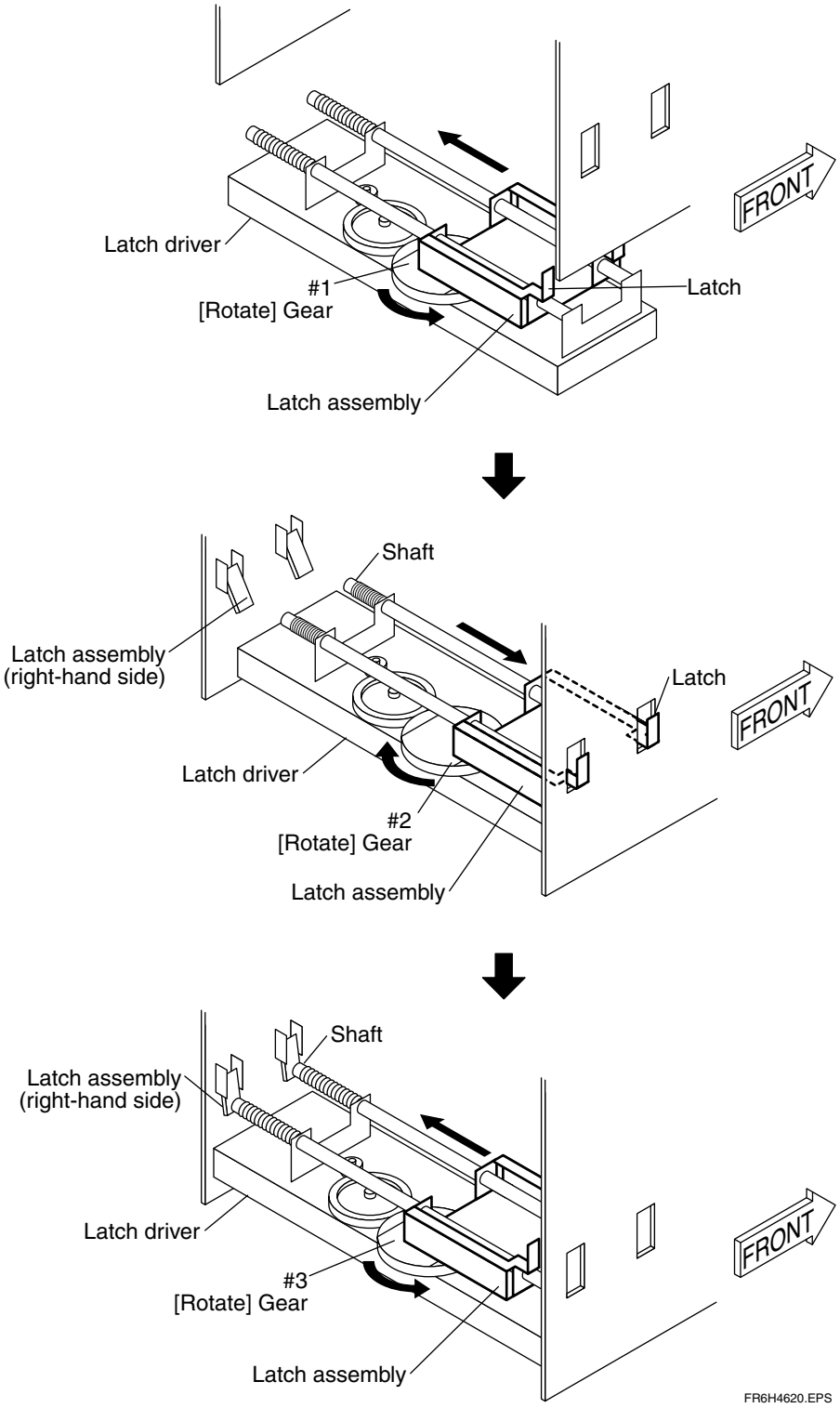


■ Exploded View



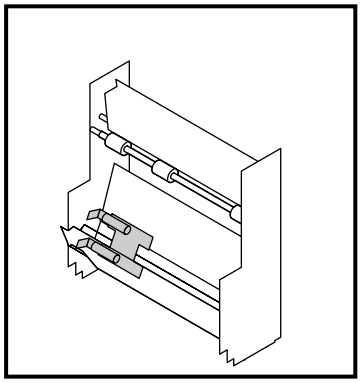
■ Reinstallation Procedures

(1) While manually rotating the gear in the direction of the arrow, attach the latch assembly.



(2) Press the latch driver to the half punch and snap it into place.

7.10 Latch Assembly (Latch Driver)



FR6H4660.EPS

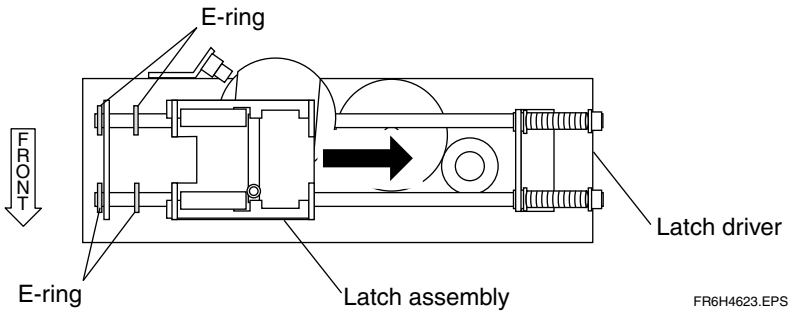
■ Removal Procedures

(1) Remove the latch driver.

☞ "7.9 Latch Driver

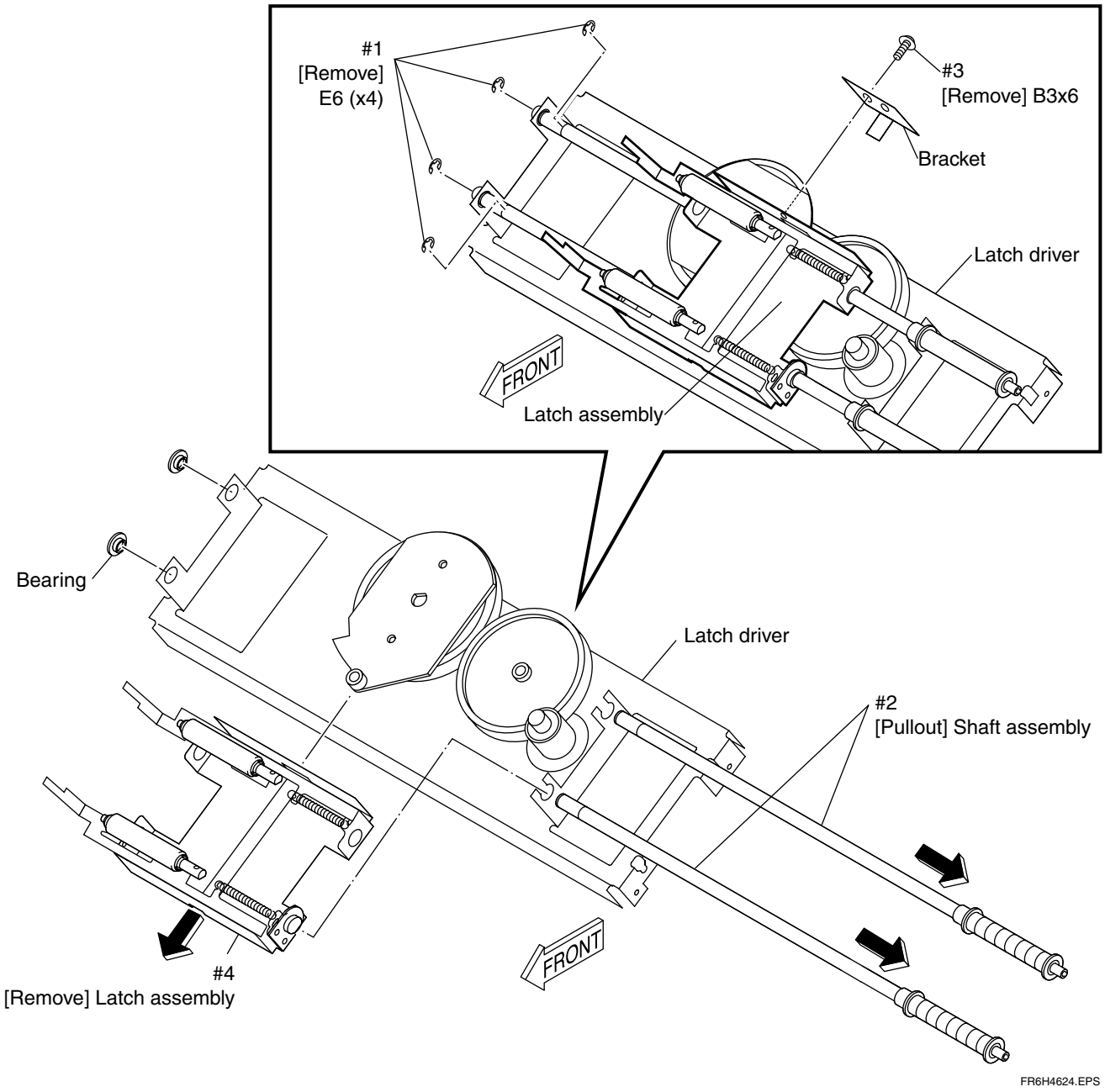
◇ *REFERENCE* ◇

To remove the latch assembly, slide the latch assembly in the direction of the arrow as illustrated below to facilitate access to the E-rings that retain the shaft.



FR6H4623.EPS

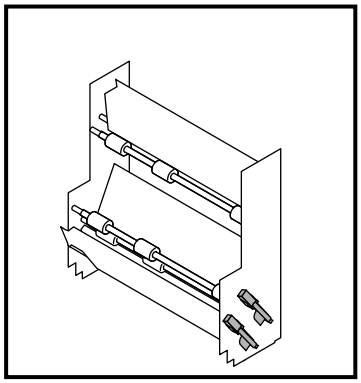
(2) Remove the latch assembly.



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

7.11 Latch Assembly (Right-Hand Side)



FR6H4661EPS

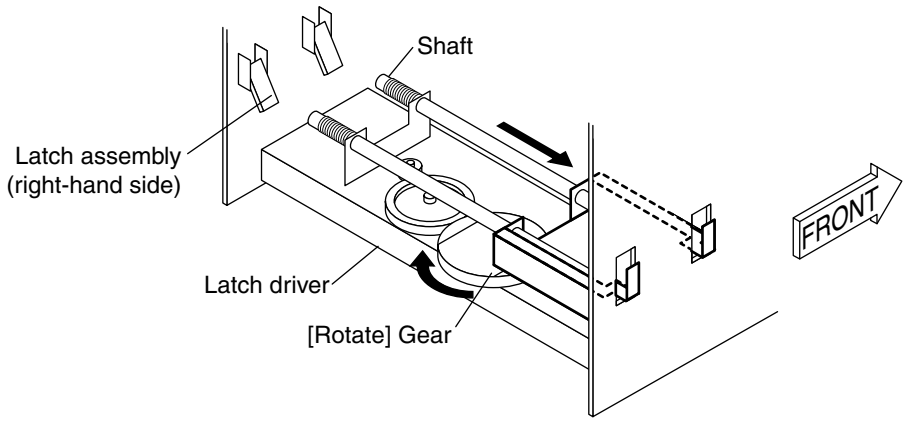
■ Removal Procedures

(1) Remove the grip mechanism (right-hand side).

☞ "7.4 Grip Mechanism (Right-Hand Side)"

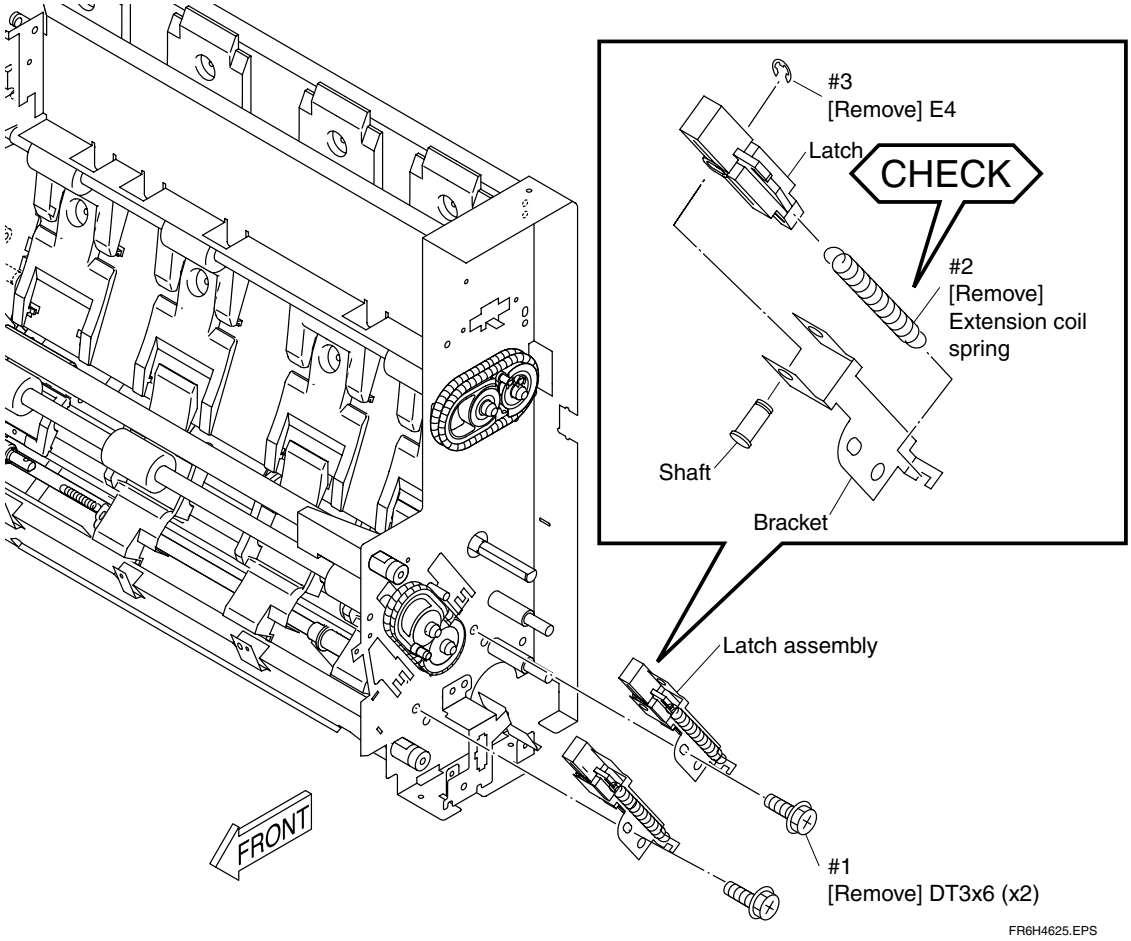
◆ ***NOTE*** ◆

To remove the latch assembly (right-hand side), manually rotate the gear in the direction of the arrow to shift the shafts of the latch driver away from the latch assembly (right-hand side).



FR6H4630.EPS

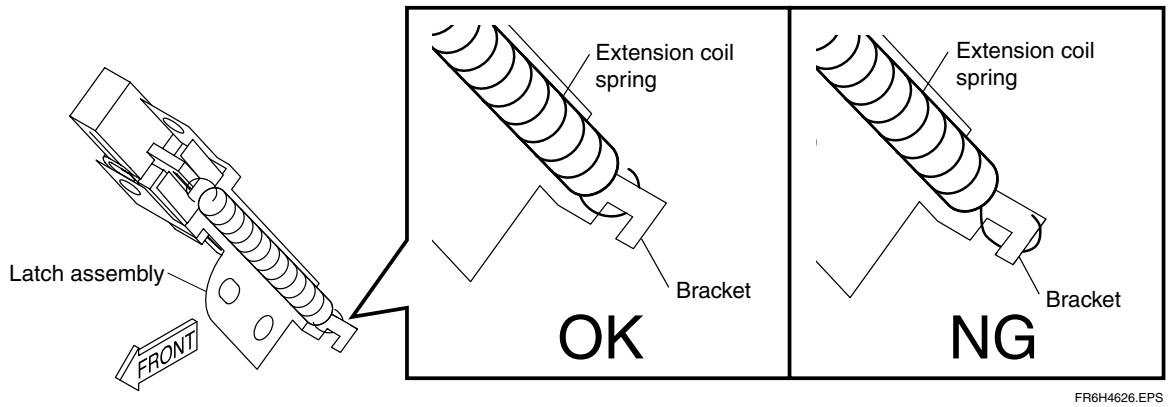
(2) Remove the latch assembly.



■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

The extension coil spring should be attached properly.

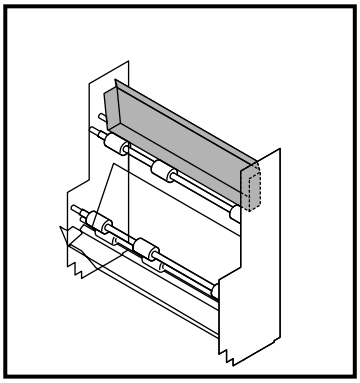


For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

• Make sure that the extension coil spring is attached correctly.

7.12 Movable Guide



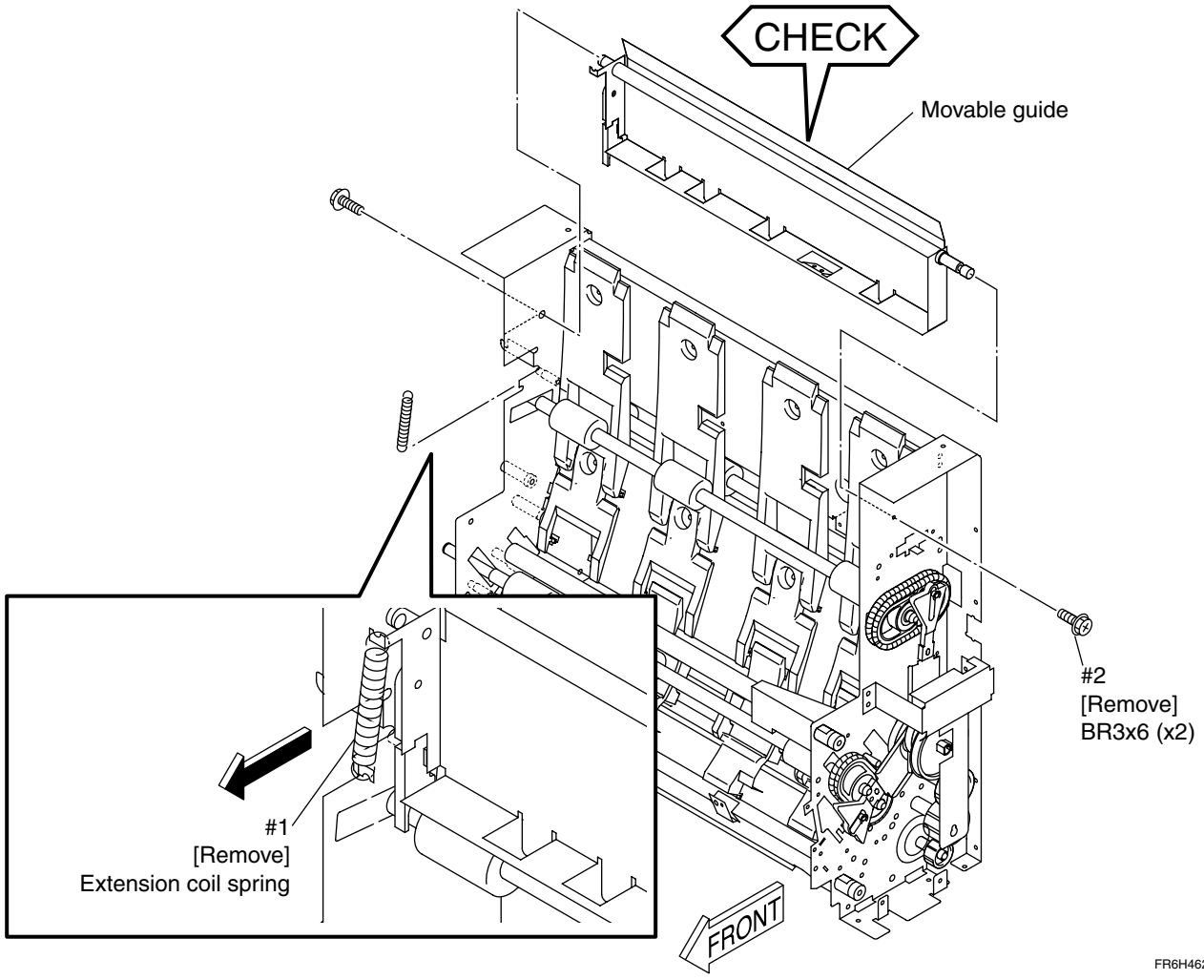
FR6H4662.EPS

■ Removal Procedures

(1) Remove the side-positioning conveyor.

☞ "7.1 Side-Positioning Conveyor

(2) Remove the movable guide.



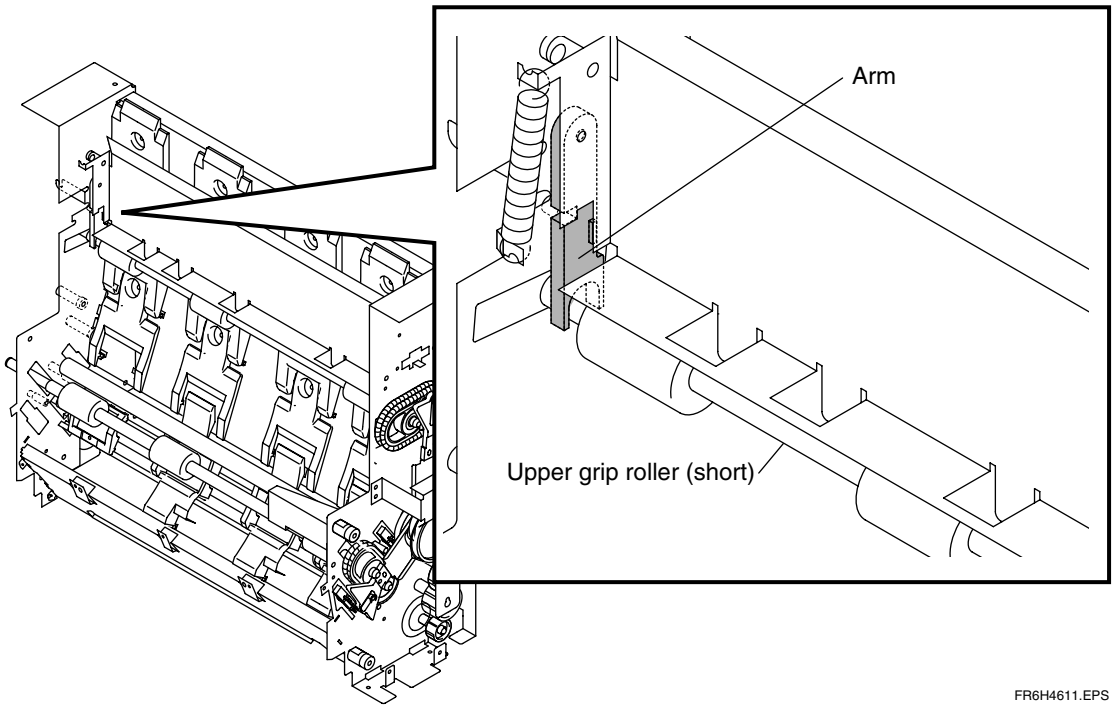
FR6H4627.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

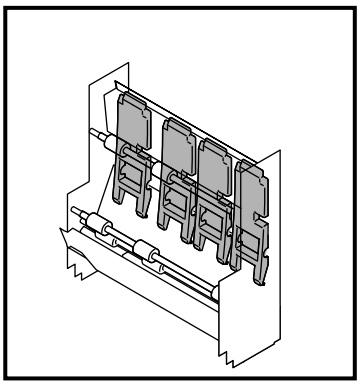
■ Check/Adjustment Procedures

• Make sure that the lower grip roller is fitted into the notch of the arm.



FR6H4611.EPS

7.13 Upper-Stage Guide



FR6H4663.EPS

■ Removal Procedures

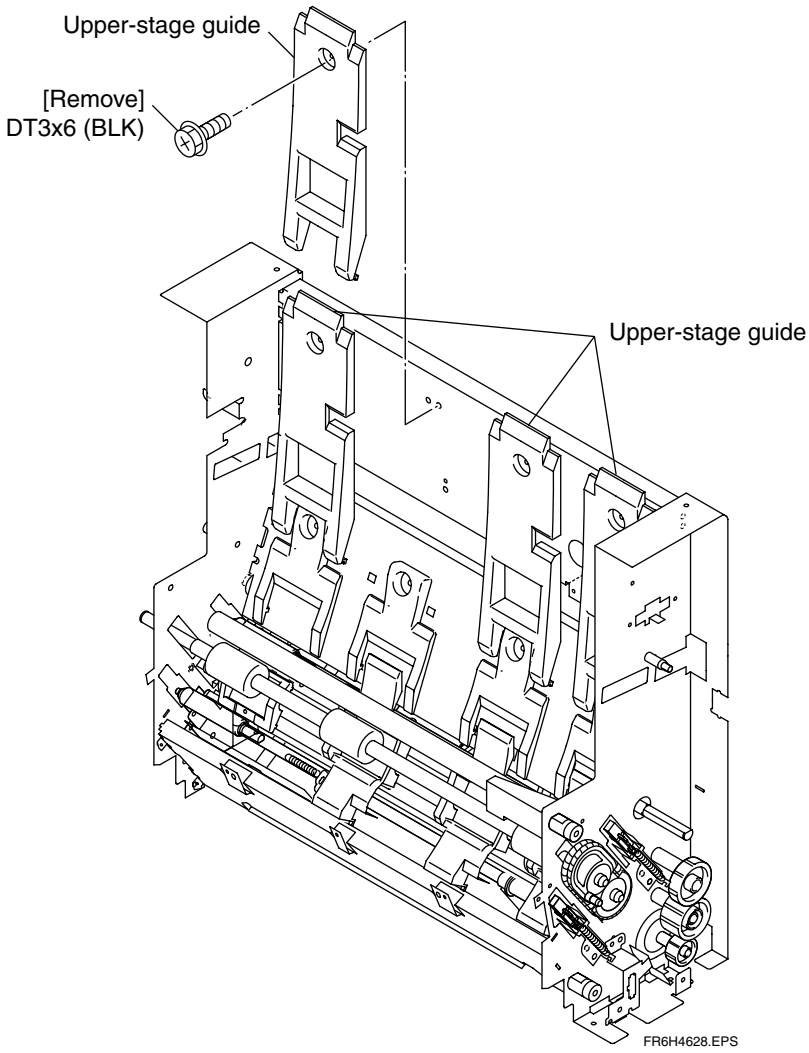
(1) Remove the upper grip roller.

☞ “7.5 Upper Grip Roller”

(2) Remove the movable guide.

☞ “7.12 Movable Guide”

(3) Remove the upper-stage guide.



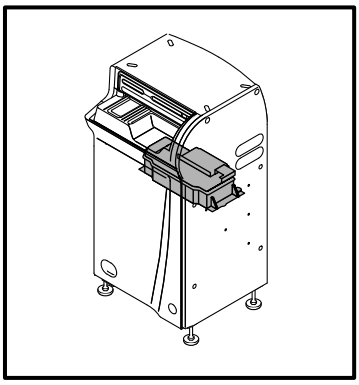
FR6H4628.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

8. Removing and Reinstalling the Scanning Optics Unit

8.1 Scanning Optics Unit



FR6H4751.EPS

WARNING

The scanning optics unit should not be removed or installed by other than a service engineer who has been trained to do so.

CAUTION

When servicing the scanning optics unit, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.

◆ INSTRUCTION ◆

Do not remove the top cover of the scanning optics unit.

■ Removal Procedures

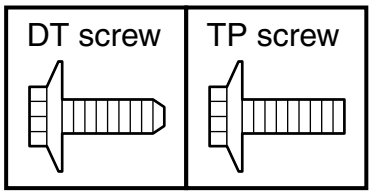
(1) Remove the covers.

- Front cover
- Left-hand side cover
- Right-hand side cover

☞ “3.1 Removing and Reinstalling the Covers”

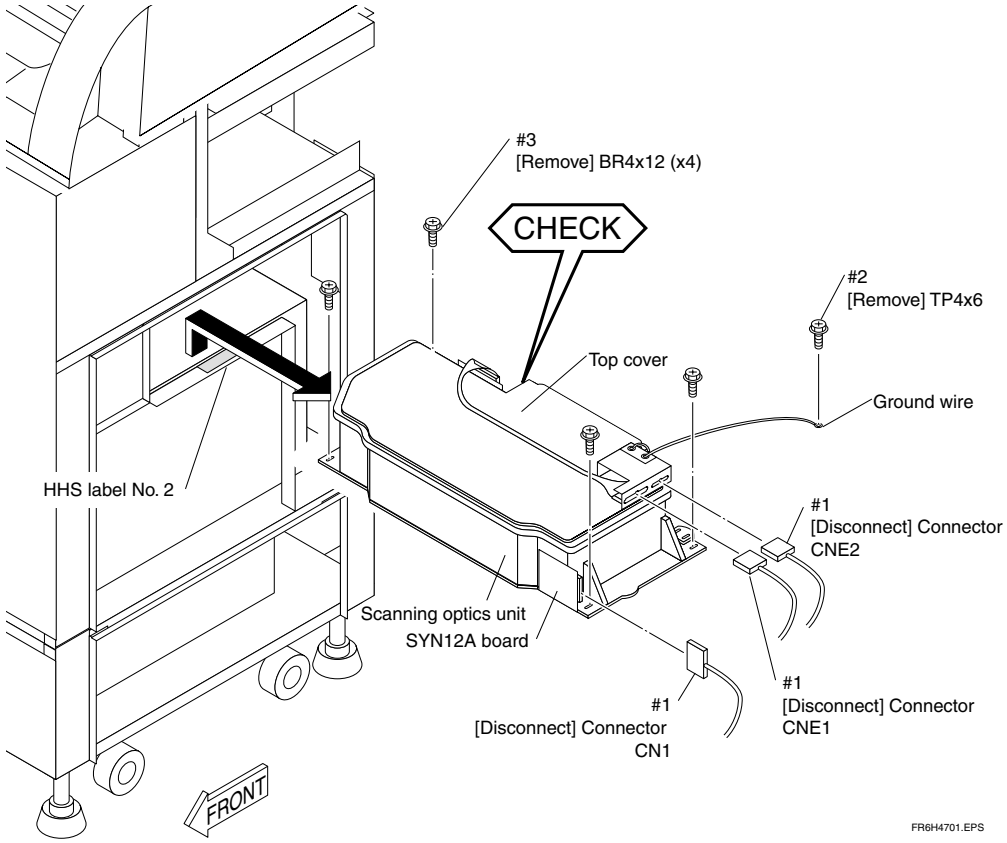
◆ ***NOTE*** ◆

The TP screw used to secure the ground wire is similar in shape to a DT screw.
When attaching the screw, check its shape to avoid confusing it with a wrong one.



FR6H4105.EPS

(2) Remove the scanning optics unit.



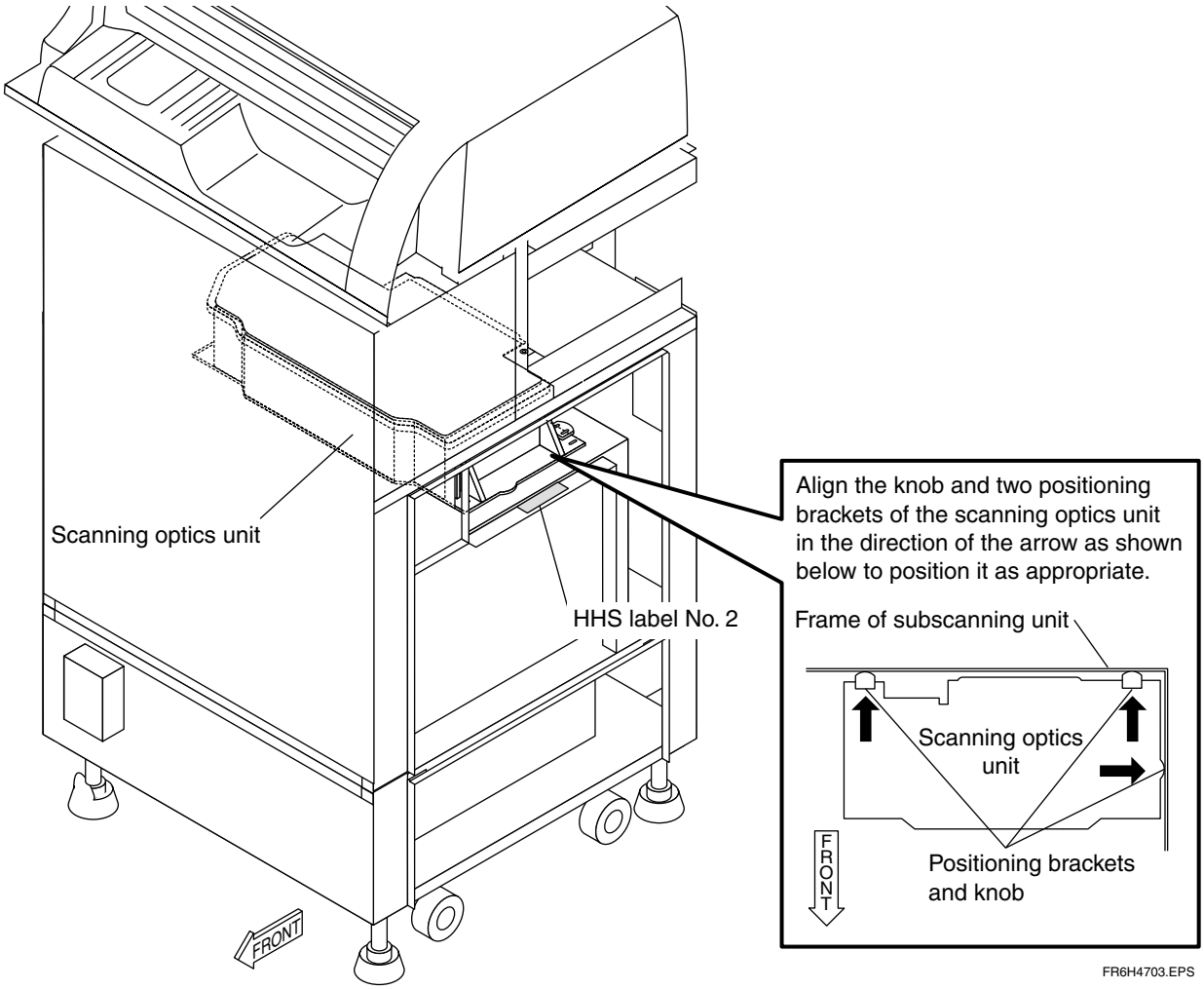
FR6H4701.EPS

■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

When installing the scanning optics unit, press the positioning brackets of the scanning optics unit against the frame of the subscanning unit to secure it in place.

For reinstallation, reverse the removal steps.


Scanning optics unit
HHS label No. 2
FRONT
Align the knob and two positioning brackets of the scanning optics unit in the direction of the arrow as shown below to position it as appropriate.
Frame of subscanning unit
Scanning optics unit
FRONT
Positioning brackets and knob

FR6H4703.EPS

■ Combination of Scanning Optics Unit Version and CR-IR346RU Software Version

When updating the version of the scanning optics unit, check the version combination table below and update the version of the CR-IR346RU software as well.

Scanning optics unit version	CR-IR346RU software version
– 839Y0035A/B	– A02
839Y0035C –	A02 –

TR6H4902.EPS

☞ “13. Version Updating Procedures”

■ Check/Adjustment Procedures

◆ *INSTRUCTION* ◆

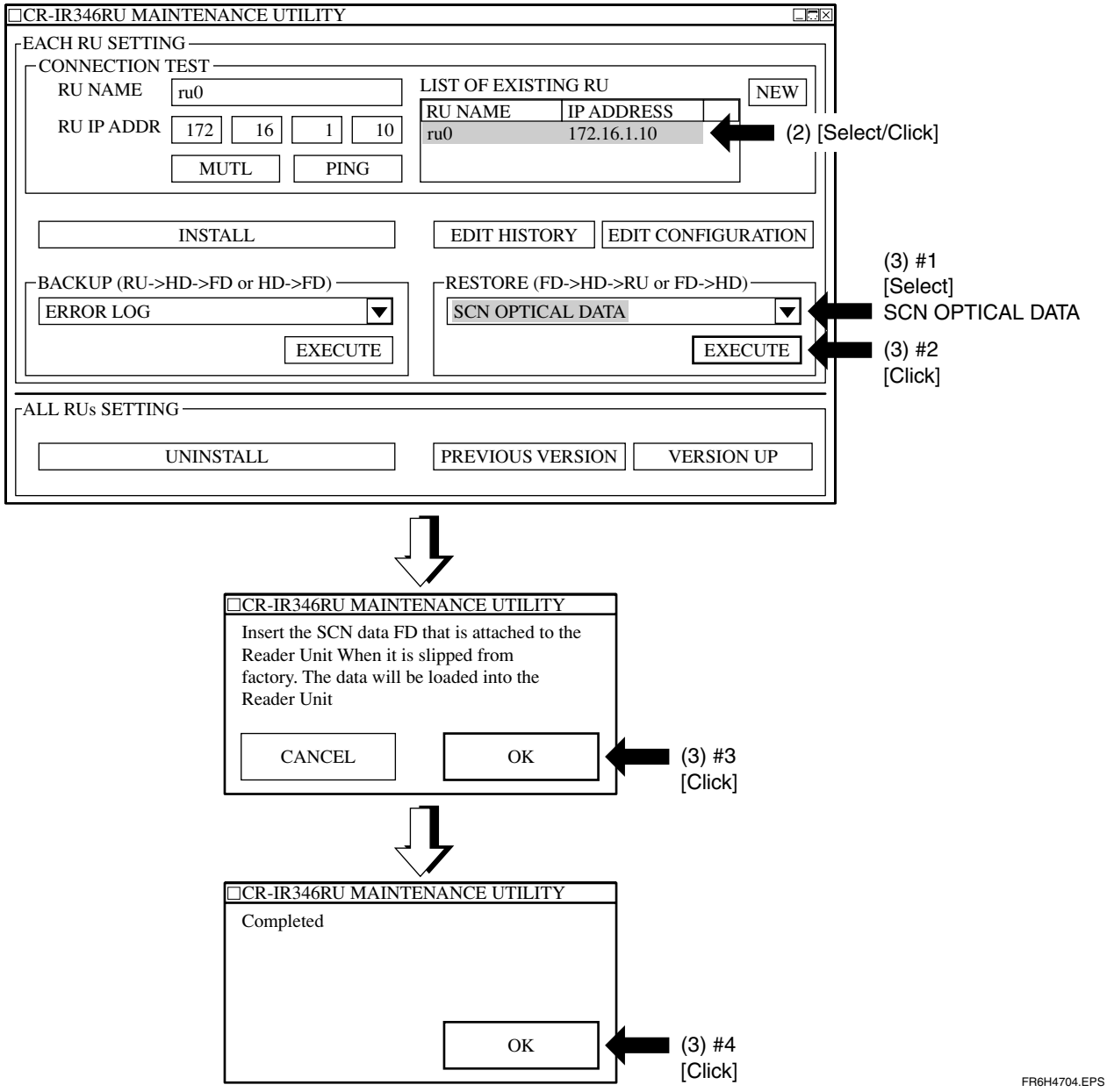
When the scanning optics unit is replaced with a new one, it is necessary to install the machine-specific data bundled therewith.
Take the following steps to install the machine-specific data.

(1) Set a machine-specific data floppy diskette into the FD drive.

(2) Open the CR-IR346RU MAINTENANCE UTILITY window and select the relevant RU from [LIST OF EXISTING RU].

(3) Install the machine-specific data for the scanning optics unit.

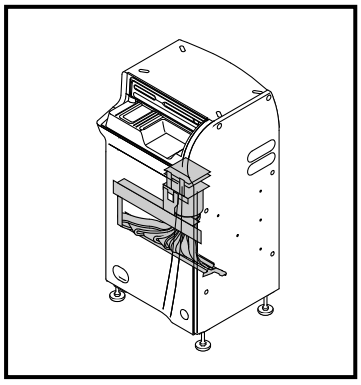
MAINTENANCE UTILITY window



FR6H4704.EPS

9. Removing and Reinstalling the Light-Collecting Unit

9.1 Light-Collecting Unit



FR6H4850.EPS

CAUTION

Never touch the light-receiving face of the light-collecting unit even when you are wearing gloves.

◆ *INSTRUCTION* ◆

When servicing the light-collecting unit, wear gloves.

■ Removal Procedures

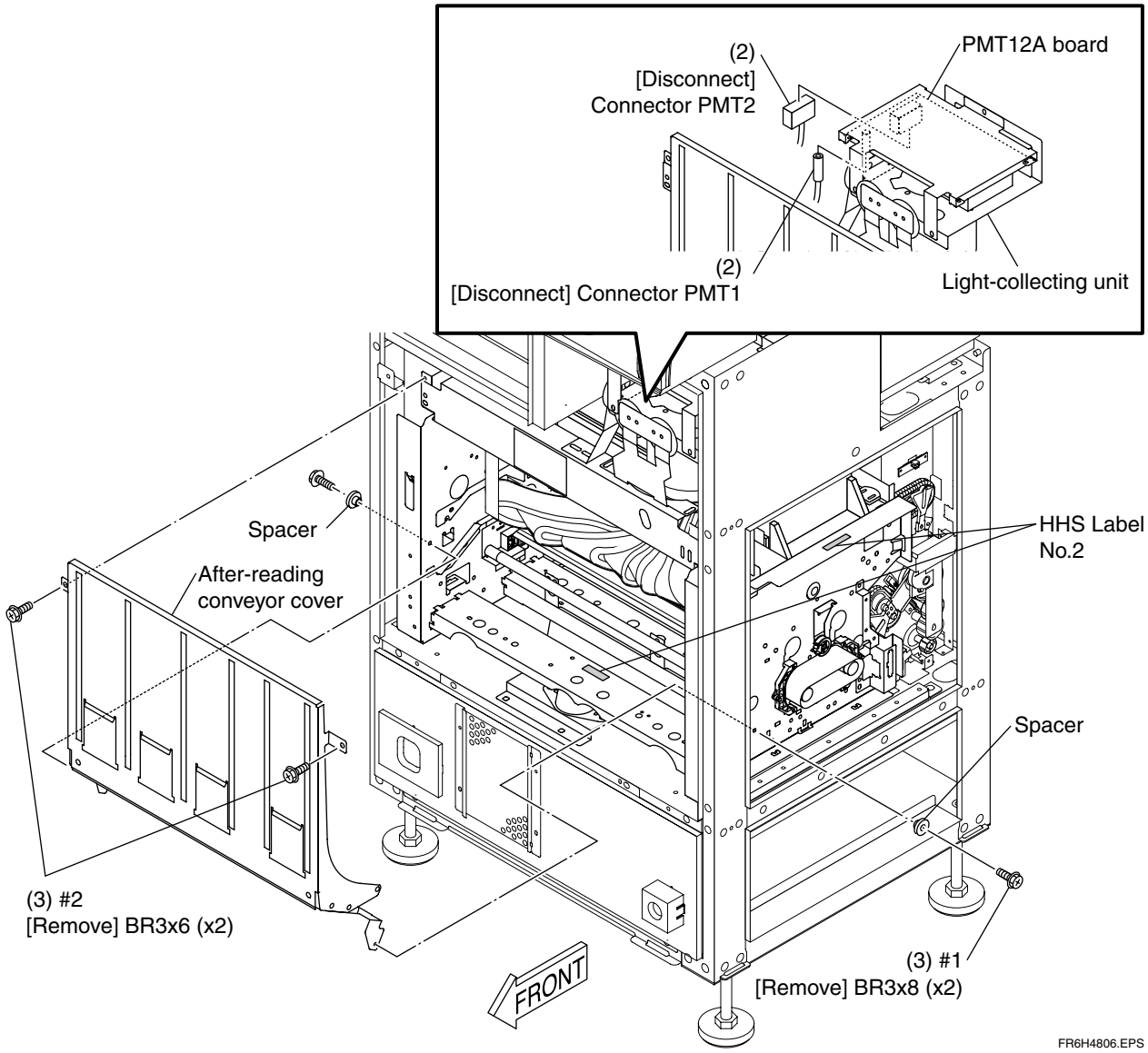
(1) Remove the covers.

- Front cover
- Right-hand side cover
- Left-hand side cover
- Top light protect plate

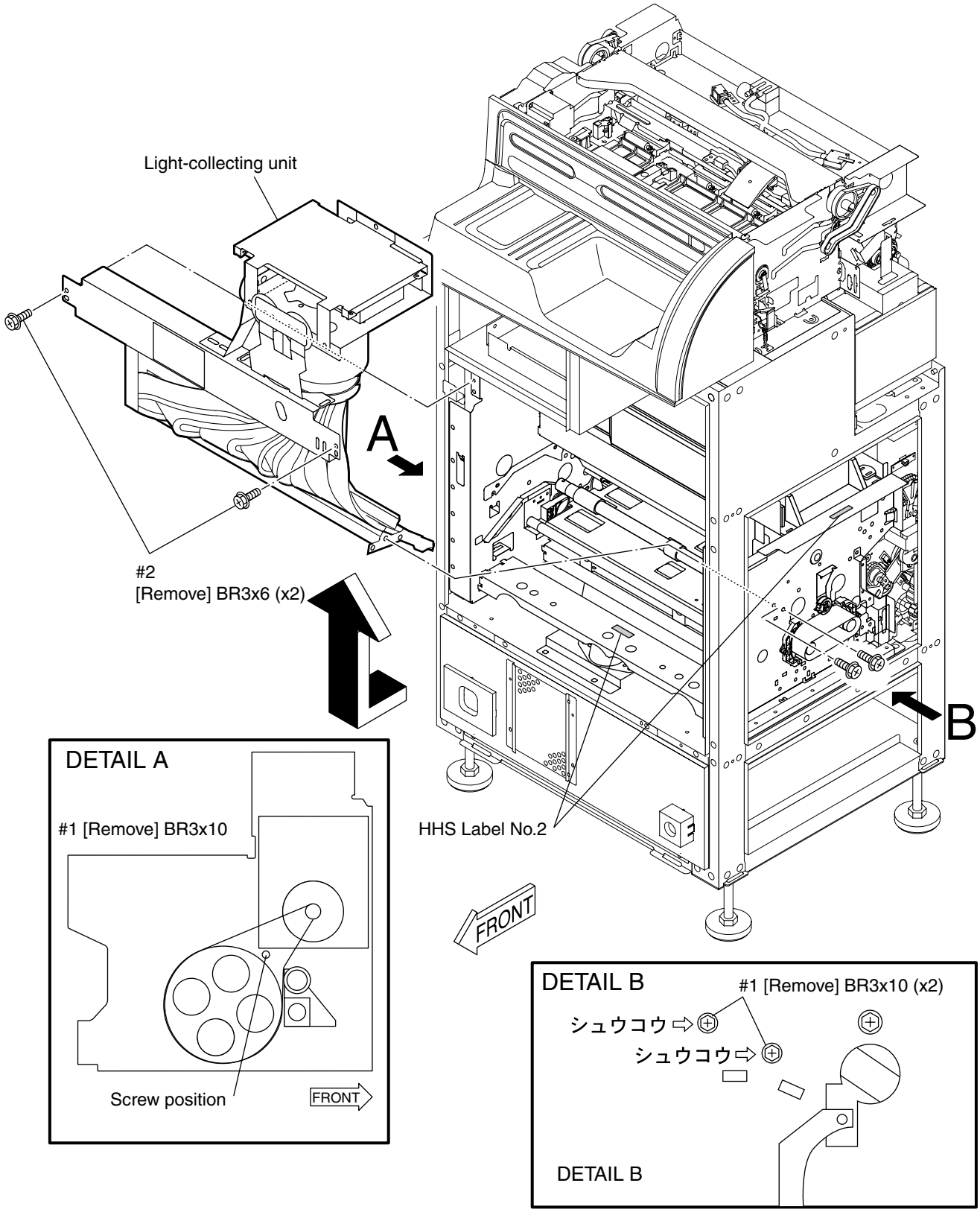
☞ “3.1 Removing and Reinstalling the Covers”

(2) Disconnect the connectors.

(3) Remove the after-reading conveyor cover.



(4) Remove the light-collecting unit.



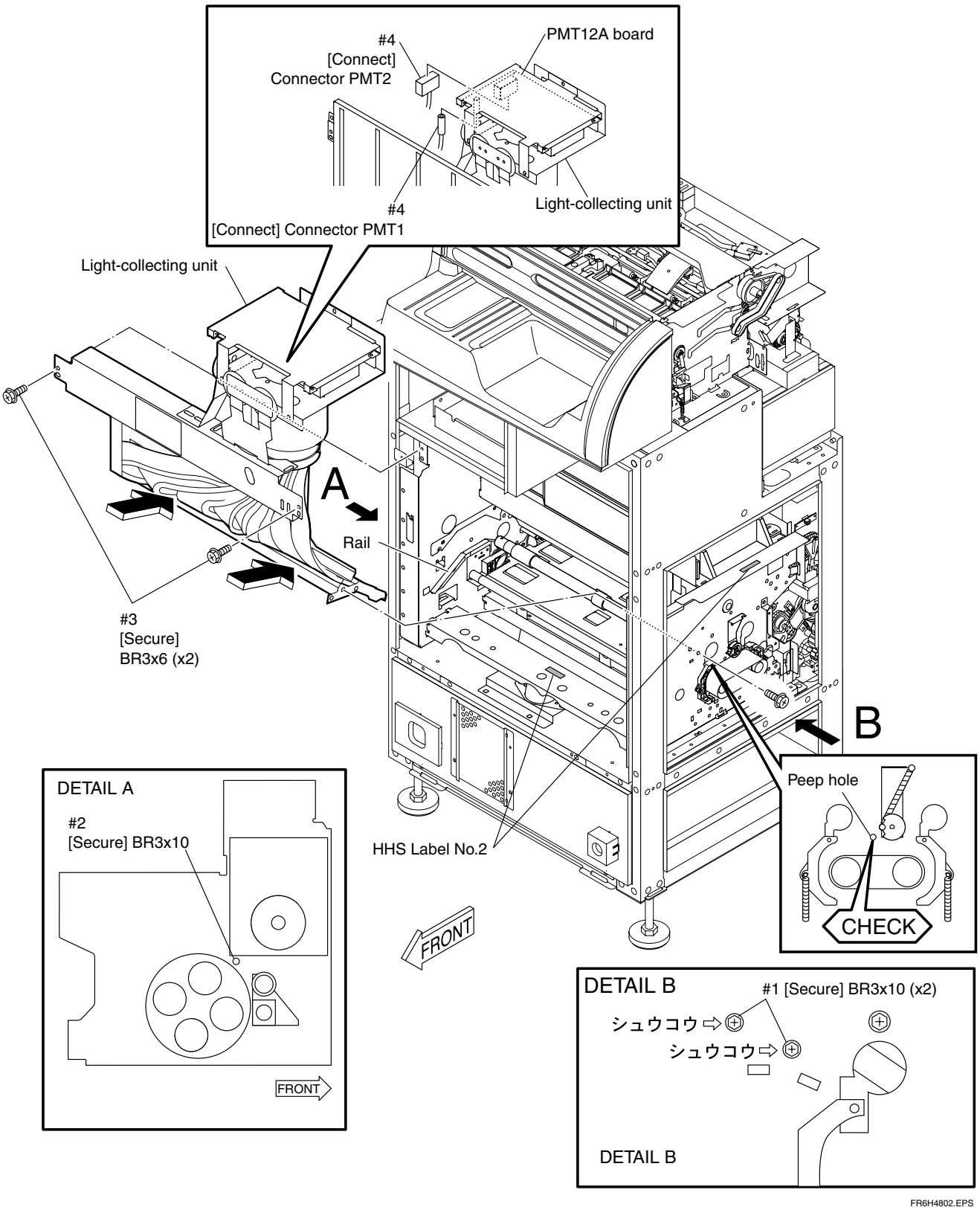
FR6H4801.EPS

■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

When installing the light-collecting unit, mount it along the rail.
When screwing down the light-collecting unit, secure it in place while pushing it in the direction of the arrow as illustrated below.

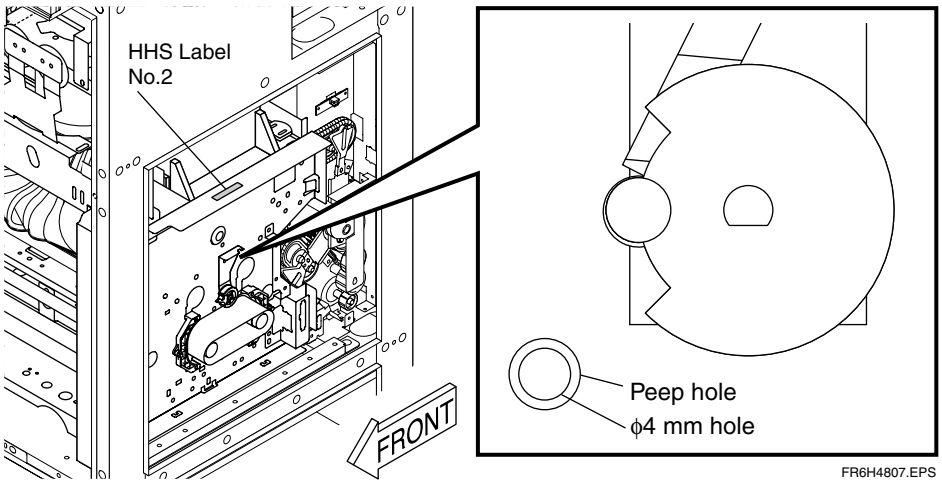
(1) Reinstall the light-collecting unit.



FR6H4802.EPS

■ Check/Adjustment Procedures

(1) While looking into the peep hole, verify that the ϕ4 mm hole is visible.



◆ *INSTRUCTION* ◆

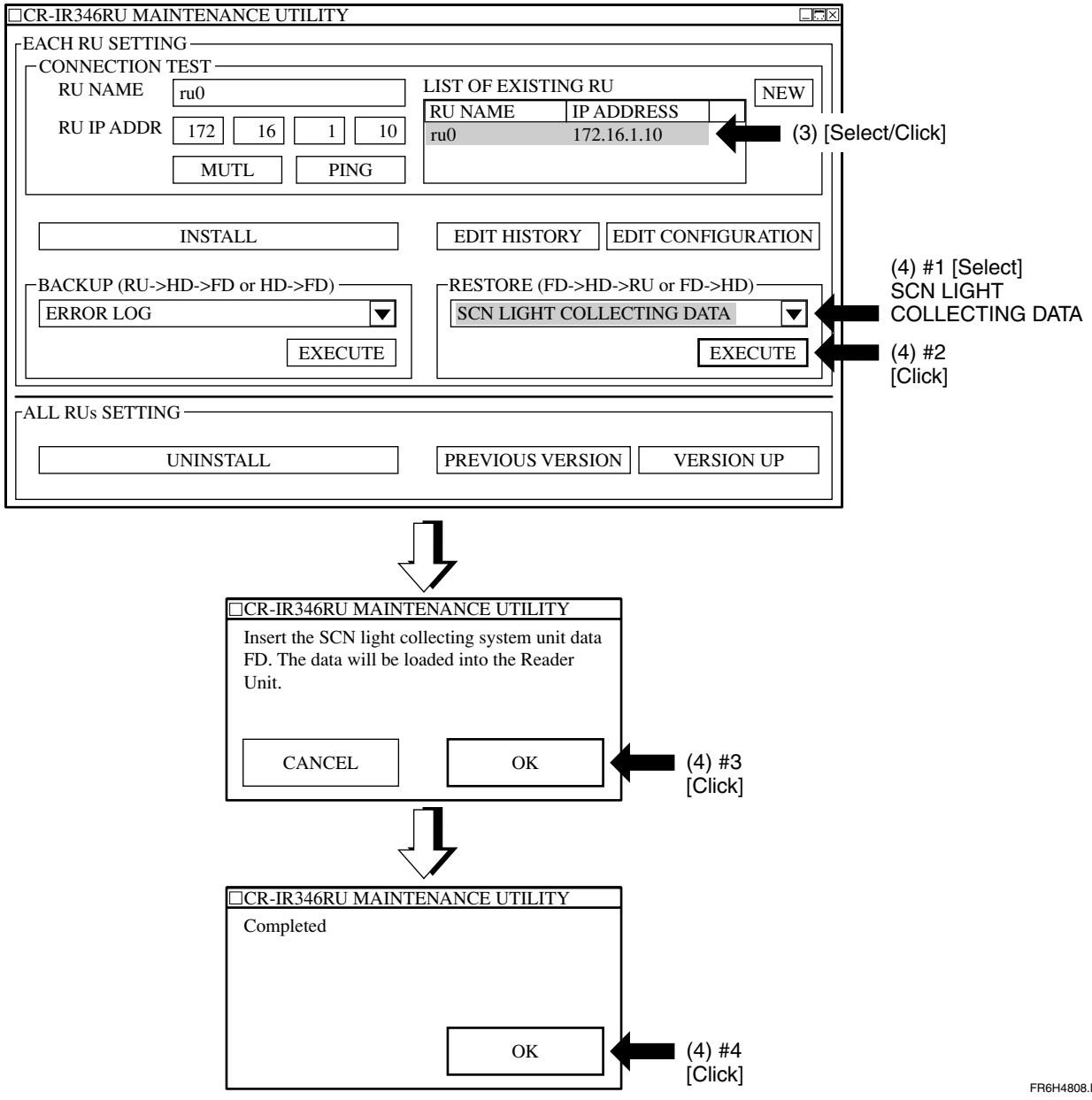
When the light-collecting unit is replaced with a new one, it is necessary to install the machine-specific data bundled therewith.
Take the following steps to install the machine-specific data.

(2) Set a machine-specific data floppy diskette into the FD drive.

(3) Open the CR-IR346RU MAINTENANCE UTILITY window and select the relevant RU from [LIST OF EXISTING RU].

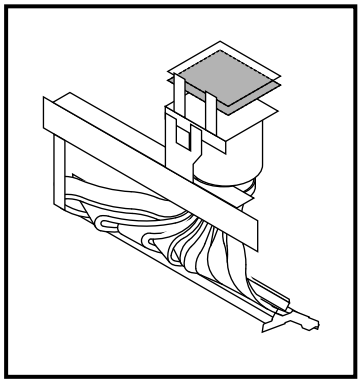
(4) Install the machine-specific data for the light-collecting unit.

MAINTENANCE UTILITY window



FR6H4808.EPS

9.2 PMT12A Board



FR6H4851.EPS

CAUTION

When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.

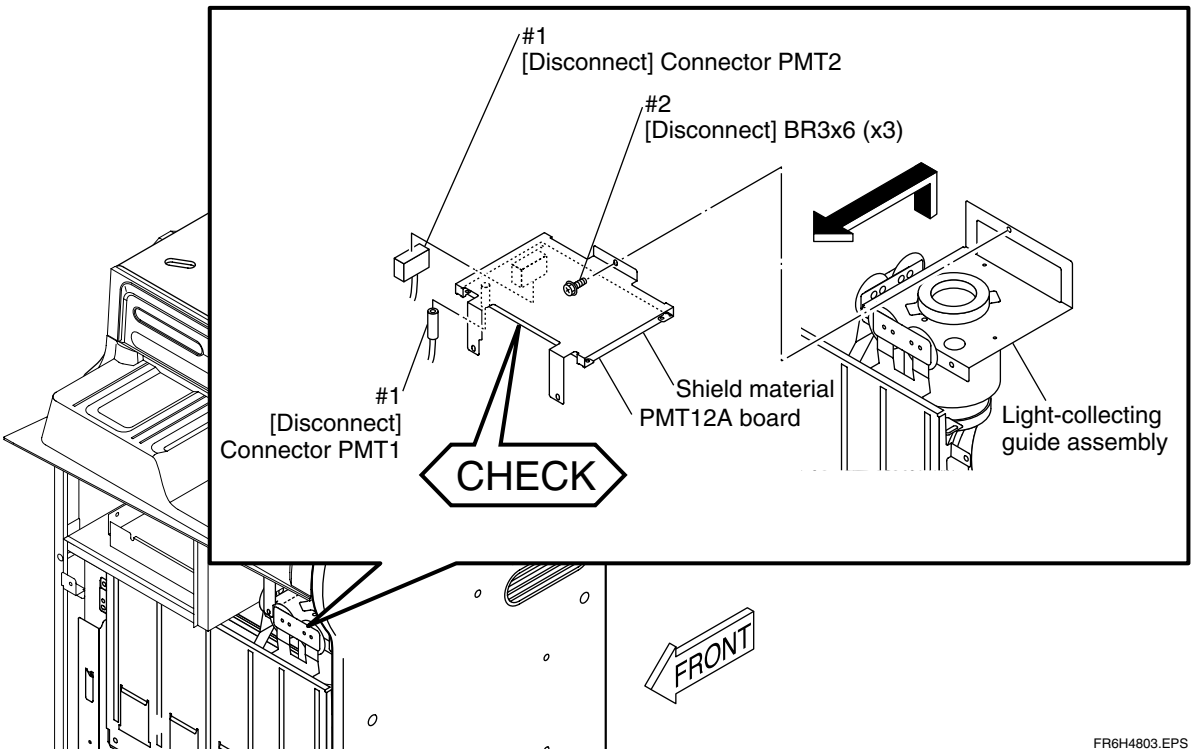
■ Removal Procedures

(1) Remove the covers.

- Front cover
- Top light protect plate

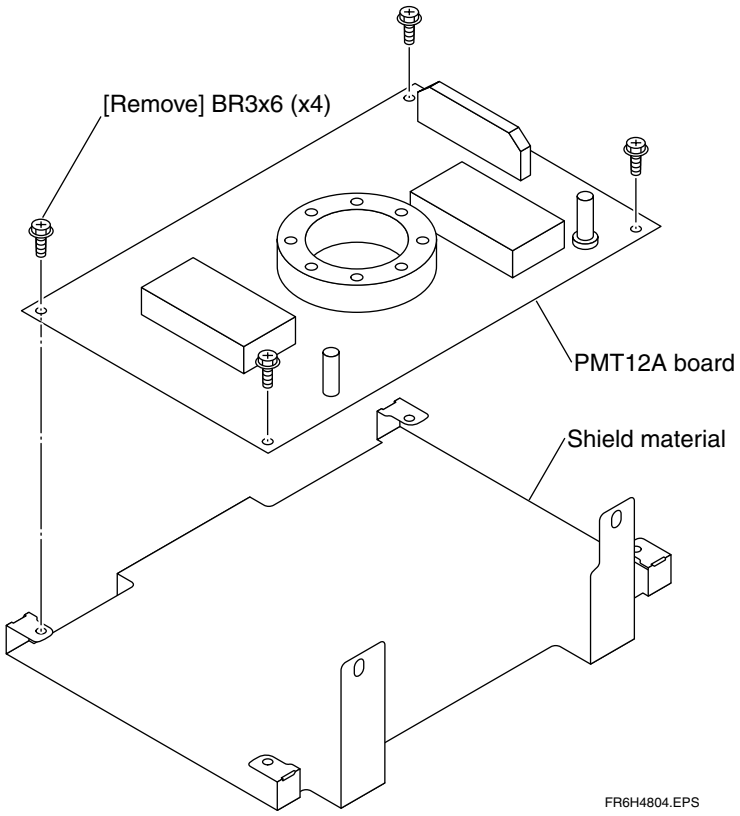
☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the PMT12A board together with the shield material.



FR6H4803.EPS

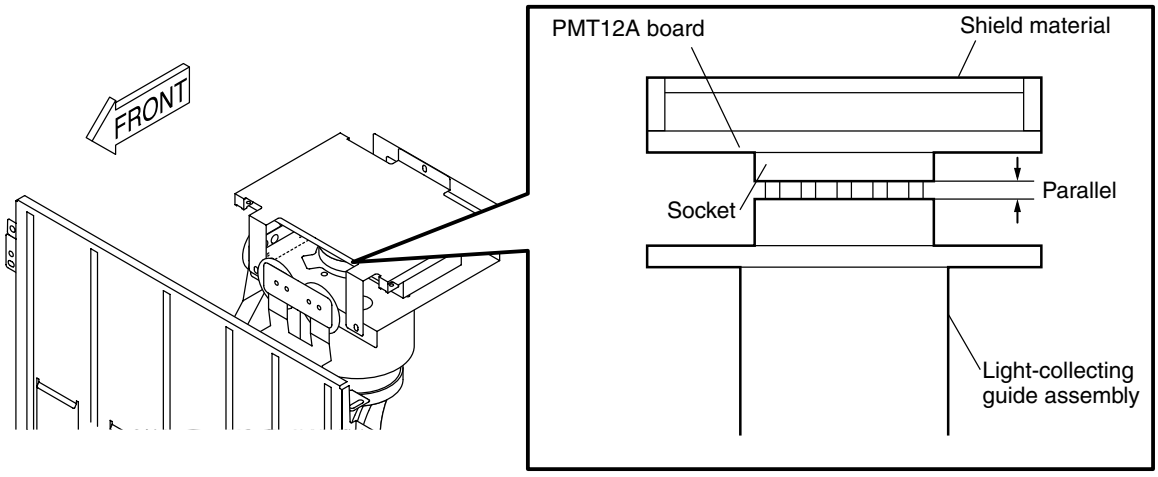
(3) Remove the PMT12A board.



■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

When installing the PMT12A board, together with the shield material, to the light-collecting guide assembly, ensure that the socket of the PMT12A board is parallel to the connector portion of the light-collecting guide assembly.



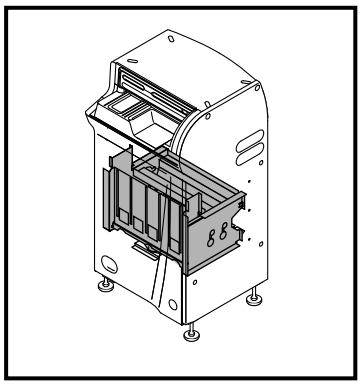
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

- Make sure that the light-collecting guide assembly is parallel to the socket of the PMT12A board.

10. Removing and Reinstalling the Subscanning Unit

10.1 Subscanning Unit



FR6H4963.EPS

■ Removal Procedures

(1) Remove the side-positioning conveyor.

☞ "7.1 Side-Positioning Conveyor"

(2) Remove the light-collecting unit.

☞ "9.1 Light-Collecting Unit"

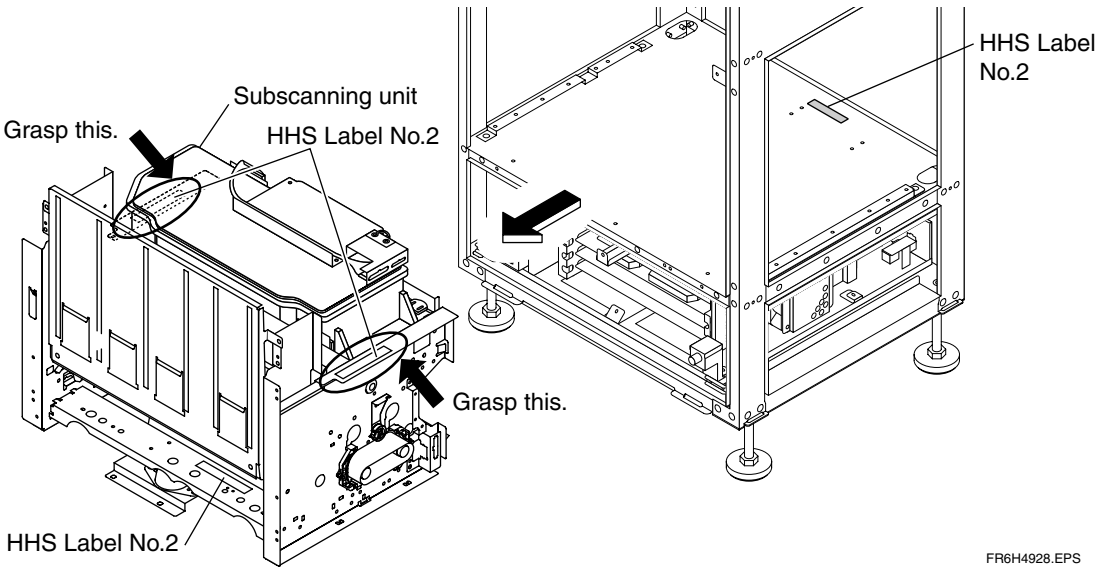
(3) Install the after-reading conveyor cover.

CAUTION

When removing or installing the subscanning unit, exercise due care about your posture to avoid lower-back pain.

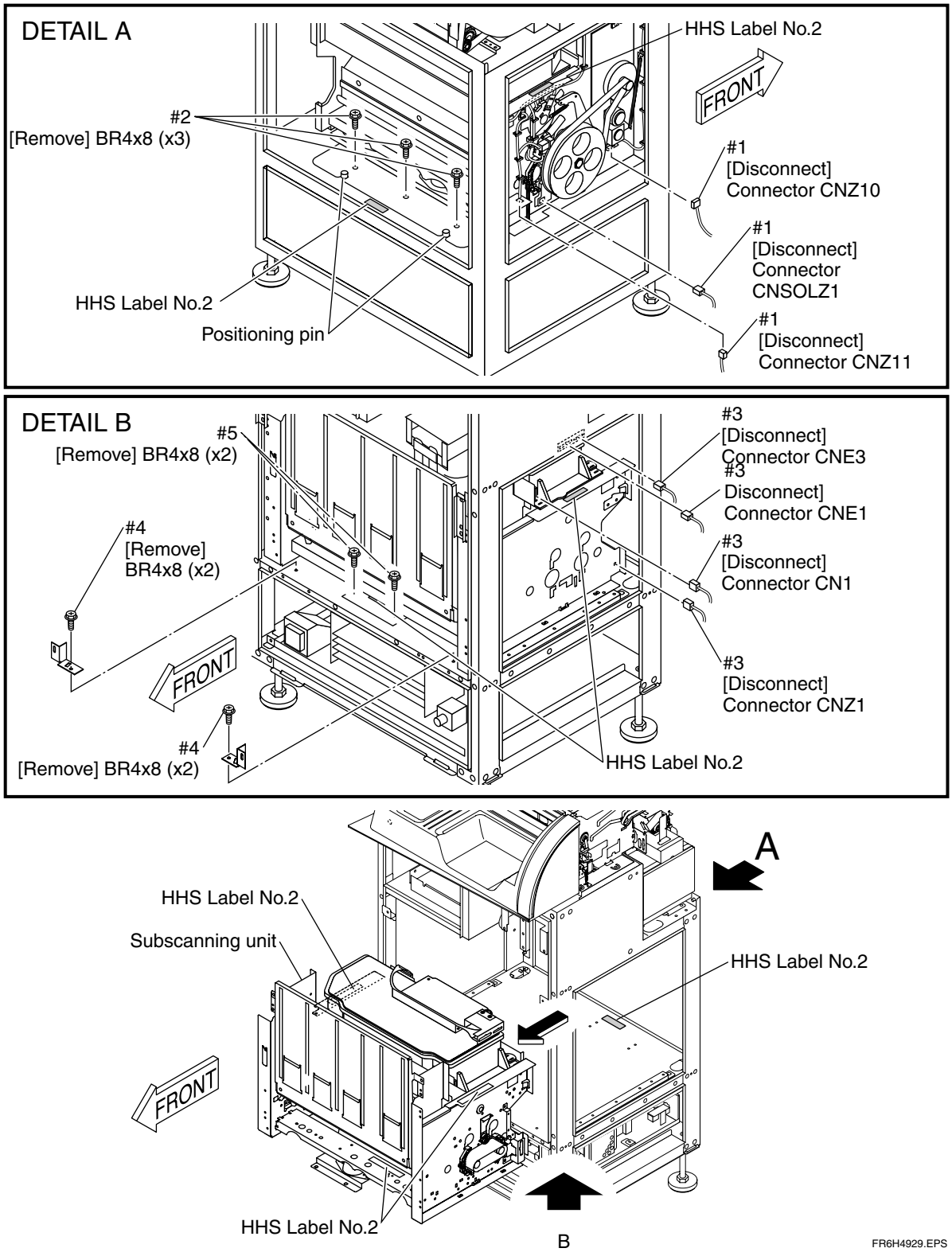
◆ NOTE ◆

When lifting up the subscanning unit, grasp the locations illustrated below.



FR6H4928.EPS

(4) Remove the subscanning unit.



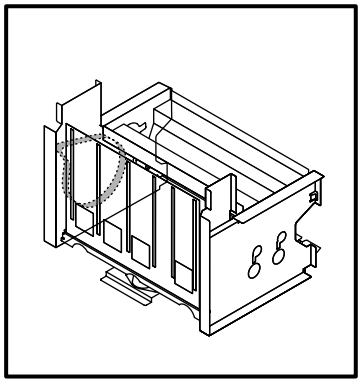
■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

While aligning the subscanning against the positioning pins, secure it in place.

For reinstallation, reverse the removal steps.

10.2 Kapton® Belt



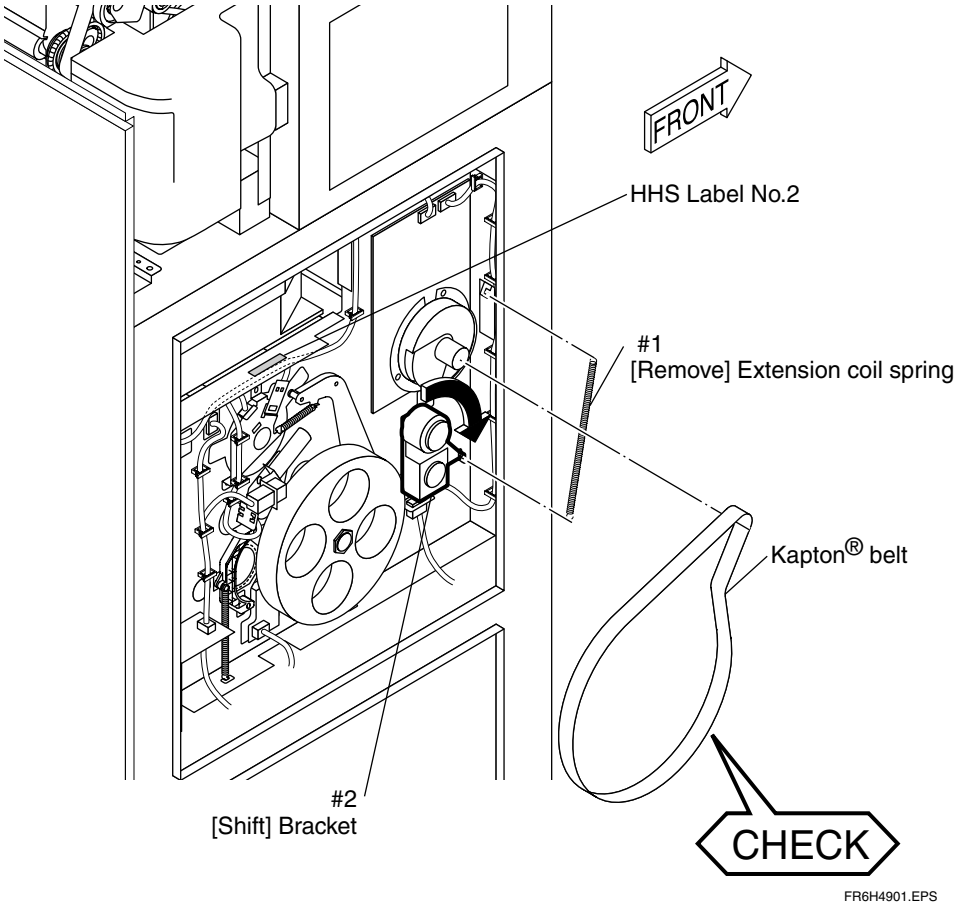
FR6H4951.EPS

■ Removal Procedures

(1) Remove the covers.
- Front cover
- Left-hand side cover

☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the Kapton® belt.

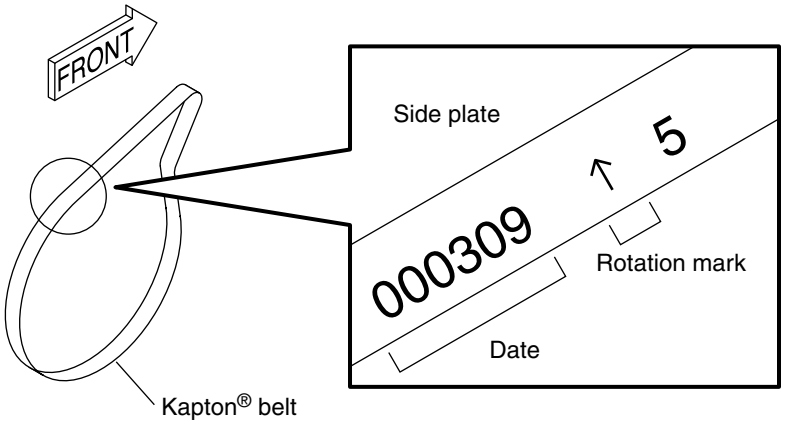


FR6H4901.EPS

■ Reinstallation Procedures

◆ *INSTRUCTIONS* ◆

- *The Kapton® belt should be mounted with its date indicating side up, so that the arrow mark faces the side plate.*
- *After mounting the Kapton® belt, manually rotate the flywheel to verify that the Kapton® belt does not come off.*

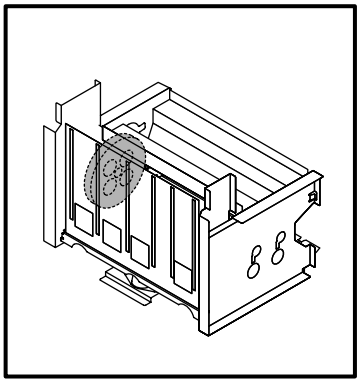


For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

- Make sure that the Kapton® belt has been mounted in a proper orientation.
- Manually rotate the flywheel to verify that the Kapton® belt does not come off.

10.3 Flywheel



FR6H4952.EPS

■ Removal Procedures

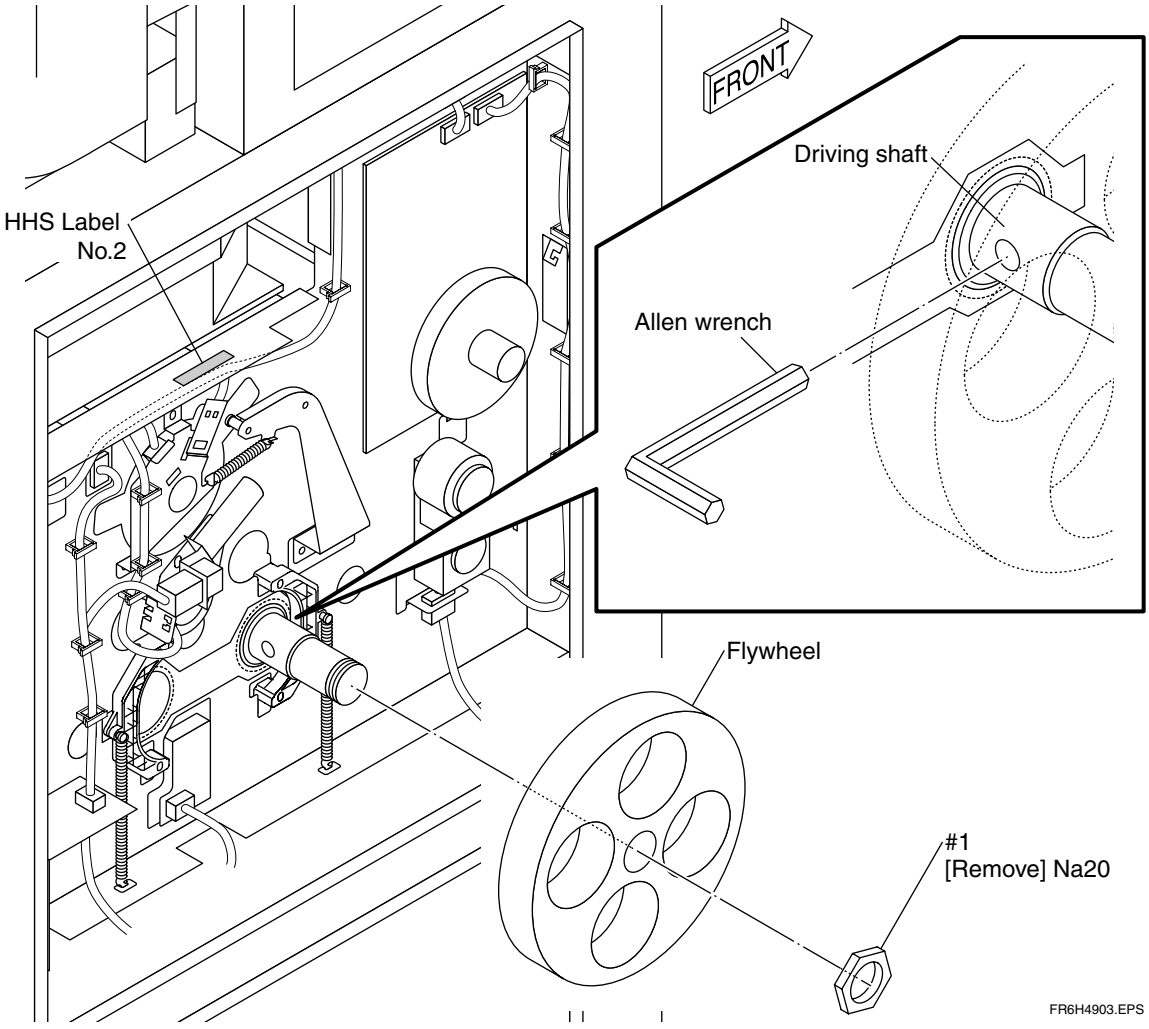
(1) Remove the Kapton® belt.

☞ "10.2 Kapton® Belt"

◆ ***NOTE*** ◆

Insert an Allen wrench into the hole of the driving shaft to secure the shaft in place, and then remove the nut.

(2) Remove the flywheel.

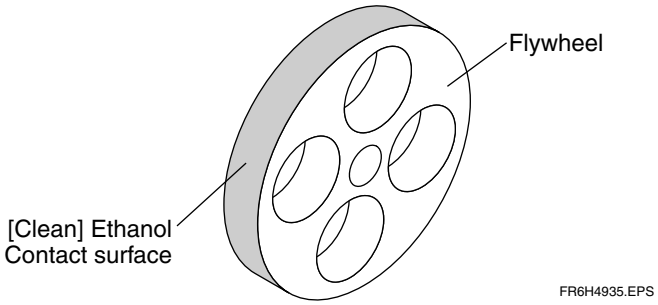


FR6H4903.EPS

■ Reinstallation Procedures

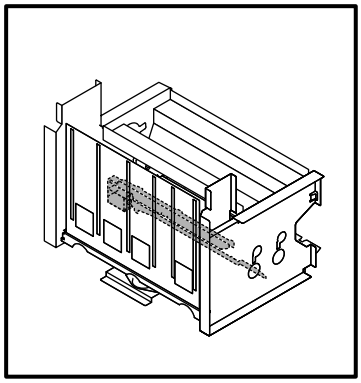
◆ *NOTES* ◆

• Use care not to damage the surface in contact with the Kapton® belt.
• Before reinstalling the flywheel, clean the Kapton® belt contacting surface with ethanol.



For reinstallation, reverse the removal steps.

10.4 Solenoid (SolZ1)



FR6H4959.EPS

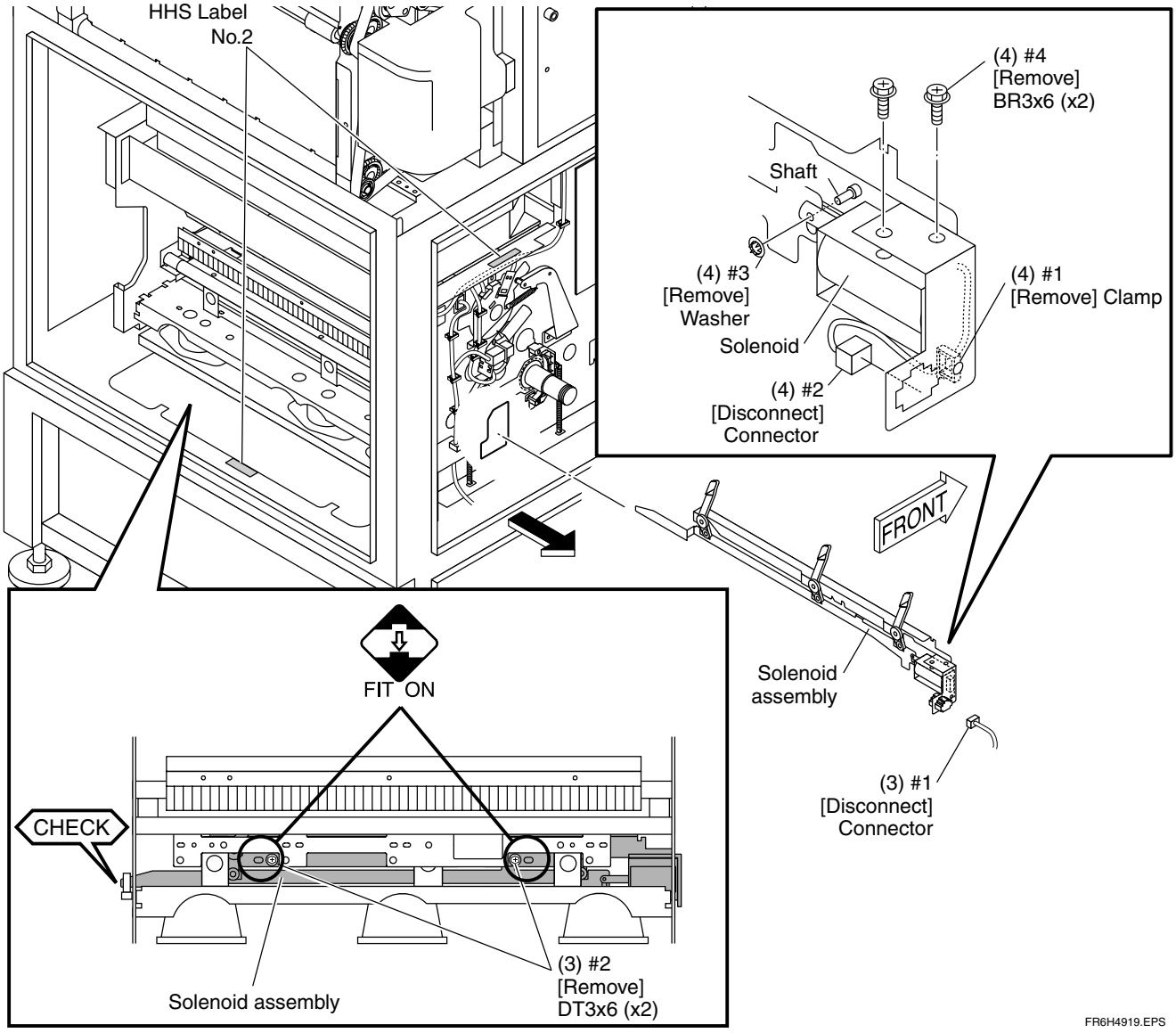
■ Removal Procedures

(1) Remove the side-positioning conveyor.
☞ “7.1 Side-Positioning Conveyor”

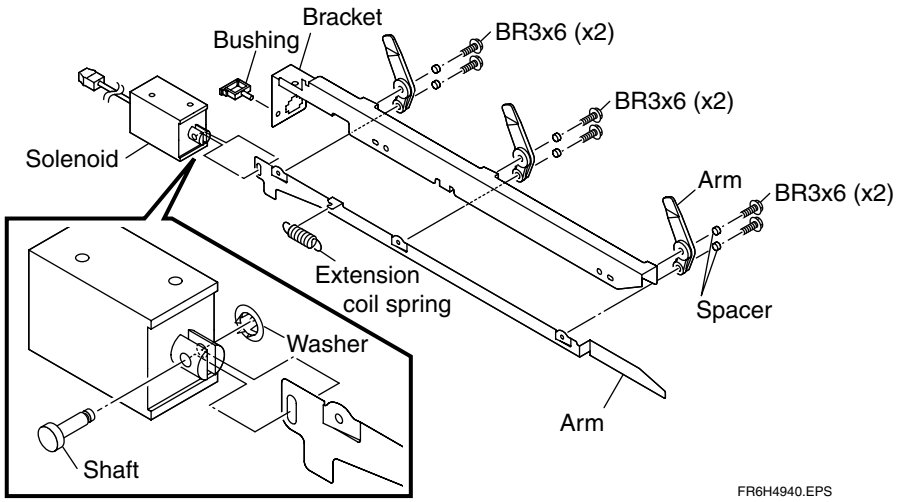
(2) Remove the flywheel.
☞ “10.3 Flywheel”

(3) Remove the solenoid assembly.

(4) Remove the solenoid.



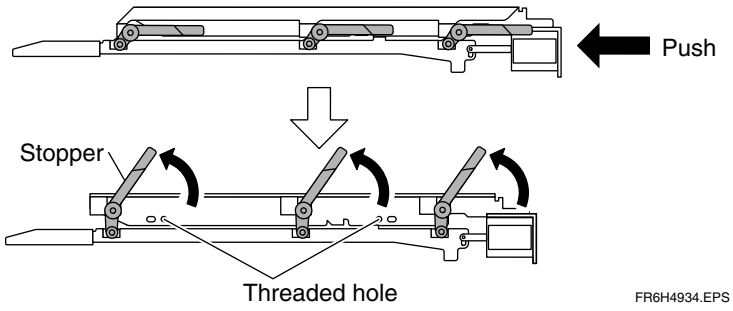
■ Exploded View



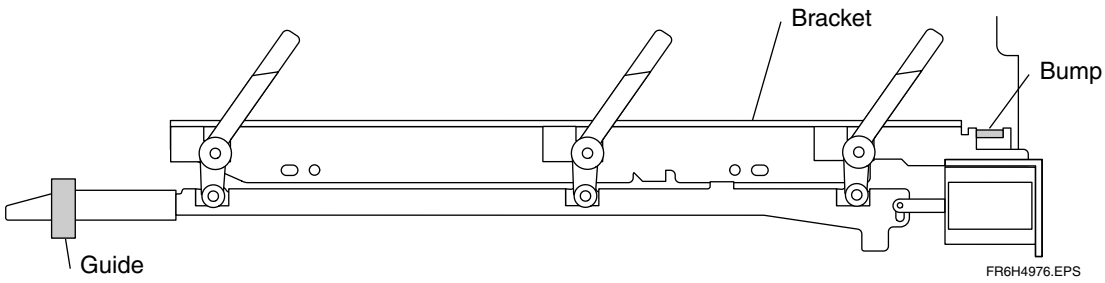
■ Reinstallation Procedures

◆ *NOTES* ◆

- *When installing the solenoid assembly, raise the stoppers to gain access to the threaded holes.*



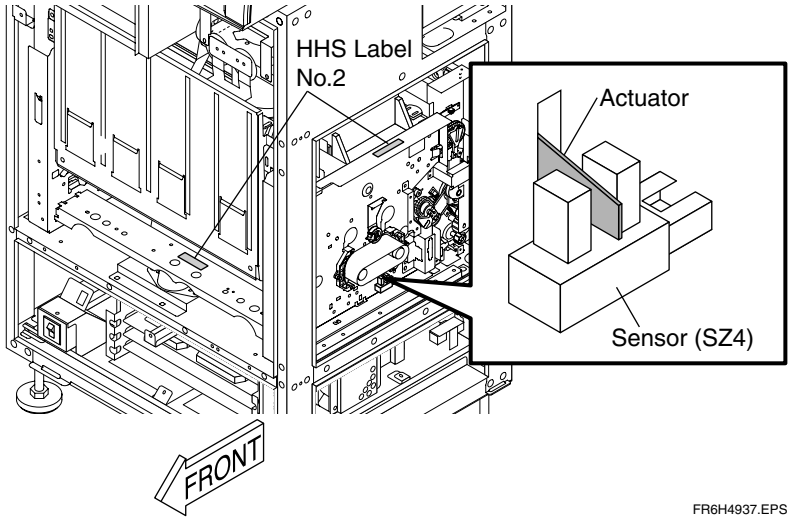
- *Make sure that the tip of the arm extends through the guide, and push the bracket of the solenoid assembly against the bump to screw it down.*



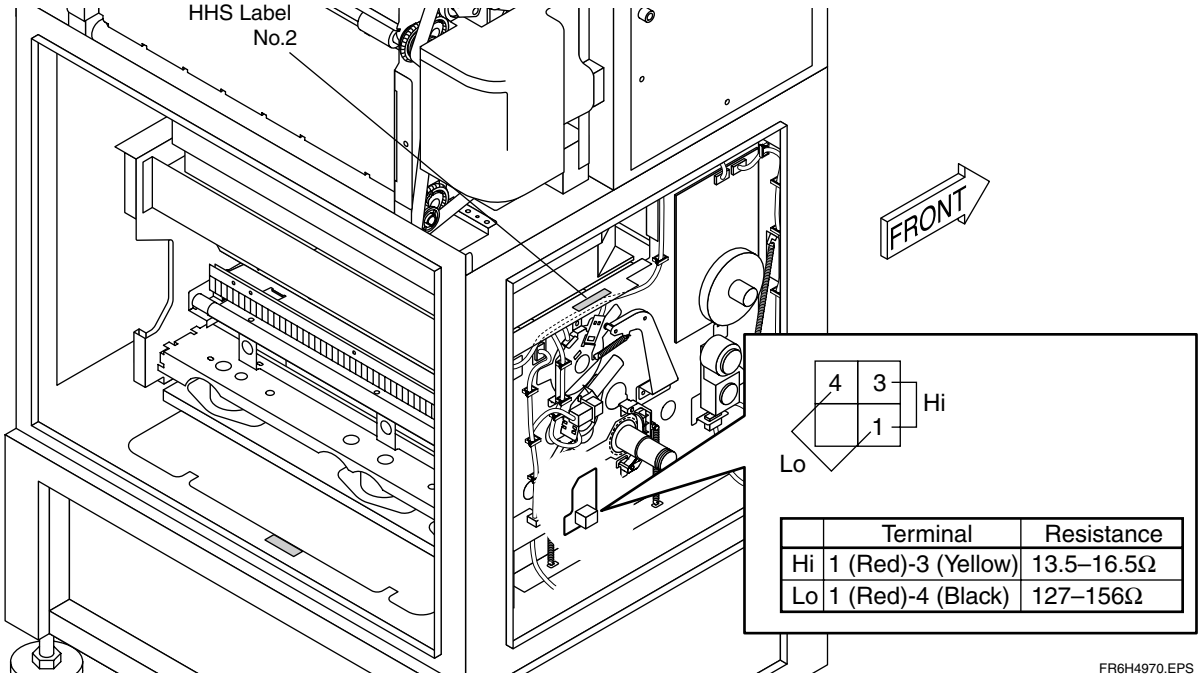
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

- Make sure that the actuator of the solenoid assembly blocks the light path of the sensor (SZ4).



- Measure the resistance value at the connector terminal of the solenoid to verify that the voltage is correct.



	Terminal	Resistance
Hi	1 (Red)-3 (Yellow)	13.5–16.5Ω
Lo	1 (Red)-4 (Black)	127–156Ω

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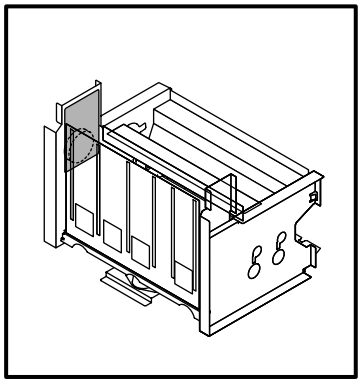
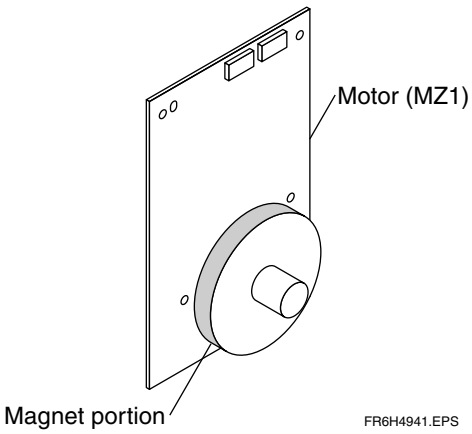
10.5 Motor (MZ1)



FR6H4964.EPS

CAUTIONS

- *When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.*
- *When removing or installing the motor (MZ1), do not use any magnet screwdriver.*
- *Do not touch the magnet portion of the motor (MZ1).*



FR6H4941.EPS

◇ REFERENCE ◇

The screws that retain the motor (MZ1) have different lengths depending on the version of the light-collecting guide assembly.
Light-collecting guide assembly 606Y0055 (#20669 or earlier): BR3x6 (x5)
Light-collecting guide assembly 606Y0055A (#20670 or later): BR3x10 (x5)

■ Removal Procedures

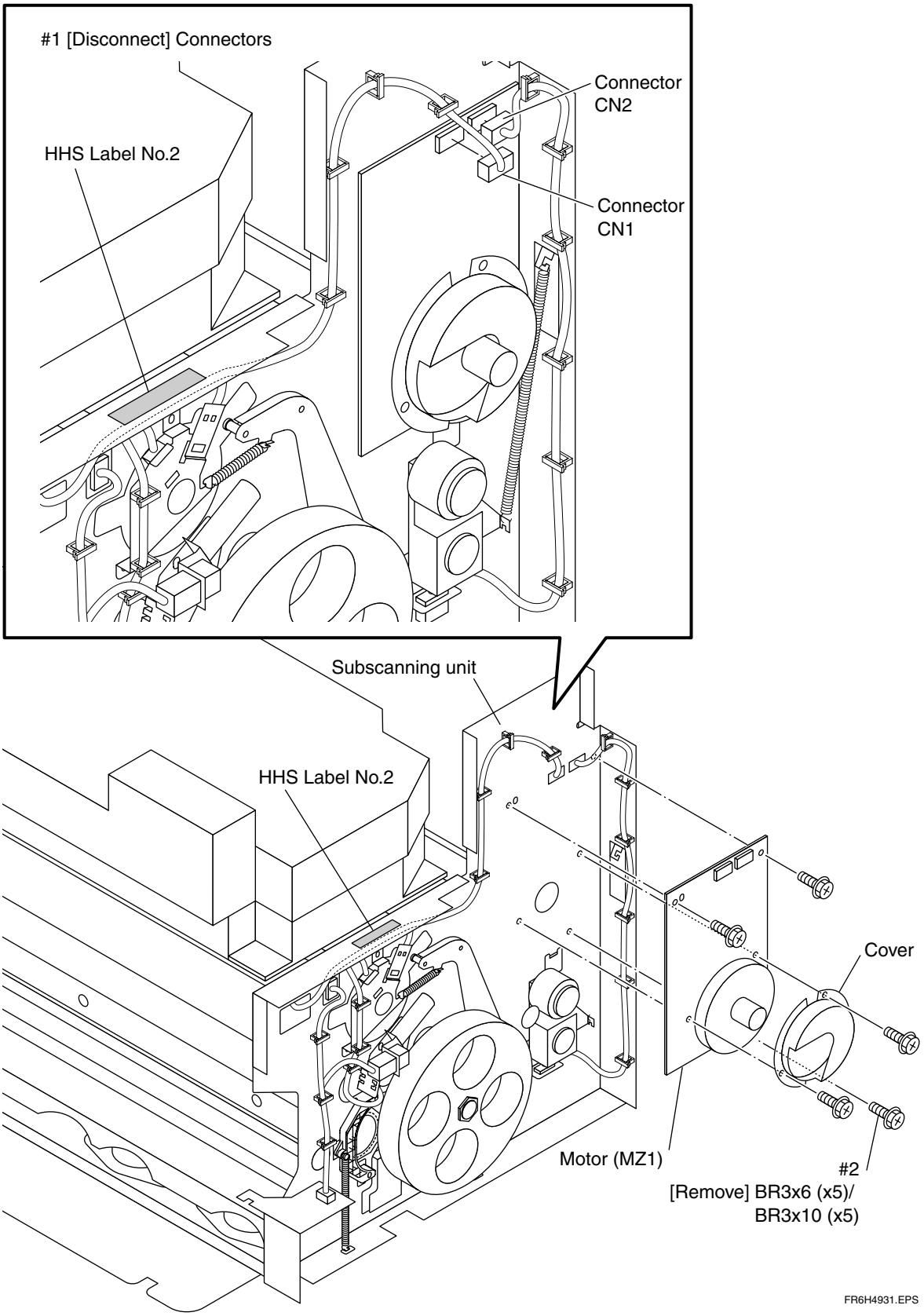
(1) Remove the subscanning unit.

☞ "10.1 Subscanning Unit"

(2) Remove the Kapton® belt.

☞ "10.2 Kapton® Belt"

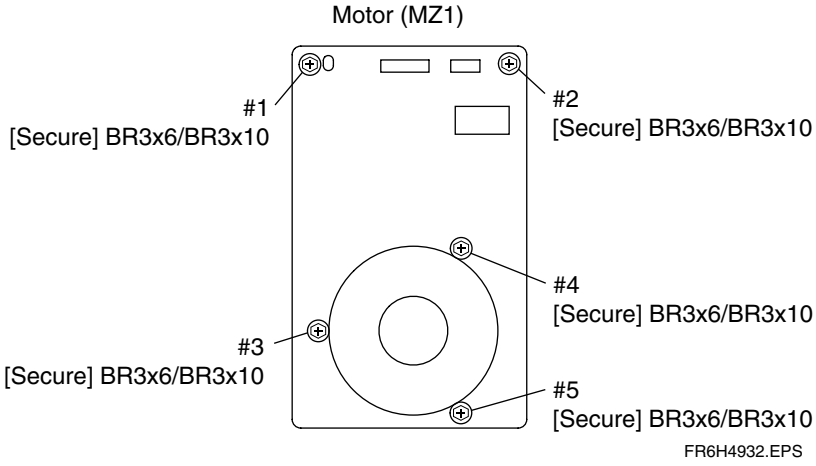
(3) Remove the motor (MZ1).



■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

When installing the motor (MZ1), loosely tighten the five screws and then securely tighten them in order illustrated below.



For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

If the motor is replaced, perform the following check procedures.

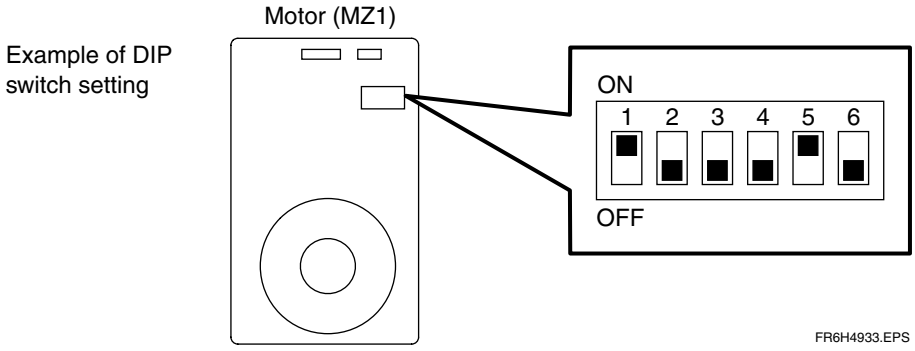
- DIP switch setting
- Preparation for output image (exposure)
- Subscan length check

If subscan length adjustments are needed, make subscan length adjustments as appropriate with reference to the DIP Switch Setting List (Table 1).

- Subscan length adjustment

● DIP switch setting

(1) Check the DIP switch setting before replacement, and make the same setting.



● Preparation for output image (exposure)

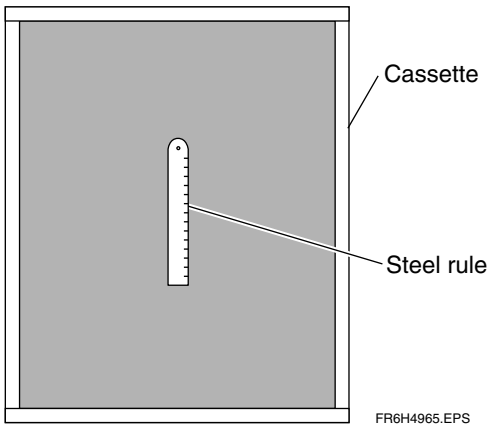
(1) Perform primary erasure on the IP to be used for subscan length check.

☞ "RU Instruction Manual/2.4 When Only Image Erasure is to be Performed (Primary Erasure)"

◆ *NOTES* ◆

• The IP type to be used should be the VI type.
• Make sure that no important image data has been exposed on the IP to be used.

(2) Place a steel rule and expose it at 1 mR.



◇ *REFERENCE* ◇

If the IP cannot be exposed at 1 mR, it should be exposed at 1 mR, with reference to the following exposure conditions.
Note, however, that those conditions are for standard IP setup reference.

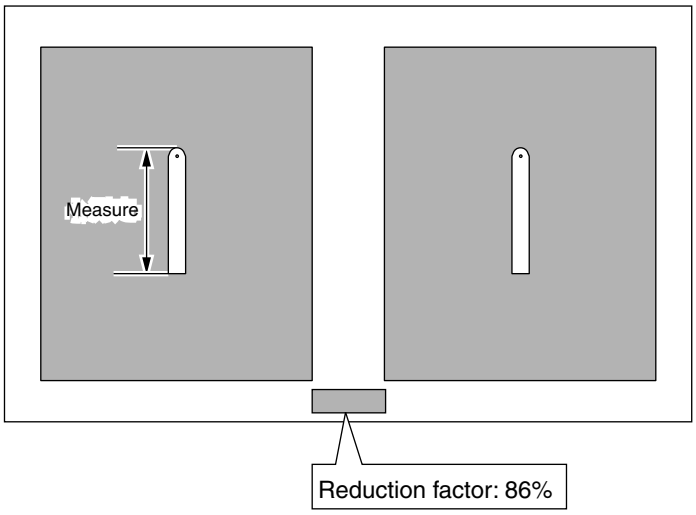
Distance:	*1.8 m*
Voltage:	*80 kV*
Amperage:	*50 mA*
Time:	*0.013 sec*

● Subscan length check

(1) Output the image exposed at 1 mR.
CL exposure menu selection screen: [TEST] [Image Format]
☞ "RU Instruction Manual/2. Operating Procedures"

(2) Calculate the length (theoretical value) of the steel rule on the film.

Example of reduction factor indication:



Formula: Length (theoretical value) of the steel rule on the film = Length of the steel rule x reduction factor

Example of calculation: 175 mm x 0.86 (86% reduction factor) = 150.5 mm

FR6H4966.EPS

(3) Calculate the allowable value of the subscan length.

Formula: Allowable value of the subscan length = Length of the steel rule (theoretical value) x specified value (±0.6%)

Example of calculation: 150.5 mm x 0.006 (±0.6%) = ±0.9 mm

149.6 mm ≤ Allowable value ≤ 151.4 mm

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(4) Measure the length of the steel rule (actual measurement) of the calipers on the output film, and verify that it is within the allowable value calculated.

149.6 mm ≤ Actual measurement ≤ 151.4 mm

◆ *NOTE* ◆

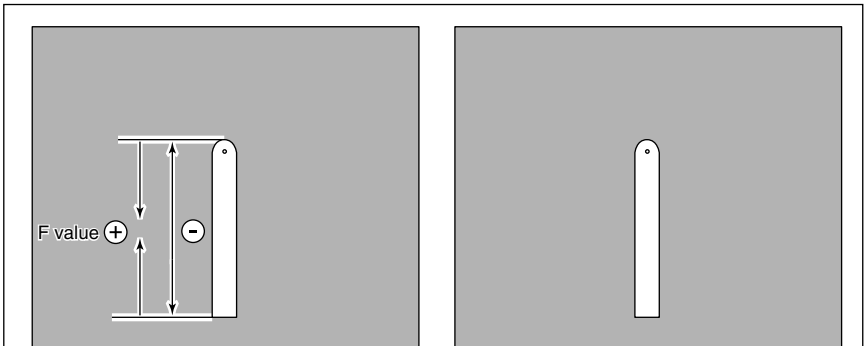
If the subscan length is beyond the allowable value, make subscan length adjustments (i.e., change the DIP switch setting), as appropriate.

● Subscan length adjustment

(1) With reference to the DIP Switch Setting List (Table 1), change the DIP switch setting.

◇ *REFERENCE* ◇

Changing the "speed fine-adjustment setup factor" in the positive (+) direction will cause the F value to decrease, while changing it in the negative (-) direction will cause the F value to increase.



FR6H4967.EPS

DIP Switch Setting List (Table 1) 0: Switch ON, 1: Switch OFF

Switch						Speed fine-adjustment setup factor (%)
S6	S5	S4	S3	S2	S1	
0	0	0	1	1	0	-1.6
1	0	0	1	1	0	-1.5
0	1	0	1	1	0	-1.4
1	1	0	1	1	0	-1.3
0	0	1	1	1	0	-1.2
1	0	1	1	1	0	-1.1
0	1	1	1	1	0	-1.0
1	1	1	1	1	0	-0.9
0	0	0	0	0	1	-0.8
1	0	0	0	0	1	-0.7
0	1	0	0	0	1	-0.6
1	1	0	0	0	1	-0.5
0	0	1	0	0	1	-0.4
1	0	1	0	0	1	-0.3
0	1	1	0	0	1	-0.2
1	1	1	0	0	1	-0.1
0	0	0	1	0	1	0
1	0	0	1	0	1	+0.1
0	1	0	1	0	1	+0.2
1	1	0	1	0	1	+0.3
0	0	1	1	0	1	+0.4
1	0	1	1	0	1	+0.5
0	1	1	1	0	1	+0.6
1	1	1	1	0	1	+0.7
0	0	0	0	1	1	+0.8
1	0	0	0	1	1	+0.9
0	1	0	0	1	1	+1.0
1	1	0	0	1	1	+1.1
0	0	1	0	1	1	+1.2
1	0	1	0	1	1	+1.3
0	1	1	0	1	1	+1.4
1	1	1	0	1	1	+1.5
0	0	0	1	1	1	+1.6

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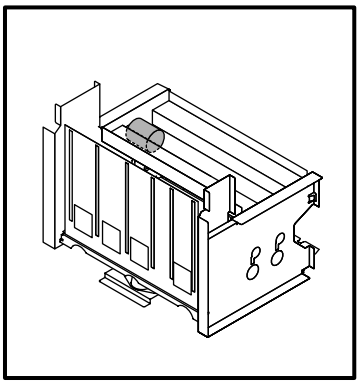
(2) Check the subscan length.

☞ "● Subscan length check"

10.6 Motor (MZ2)



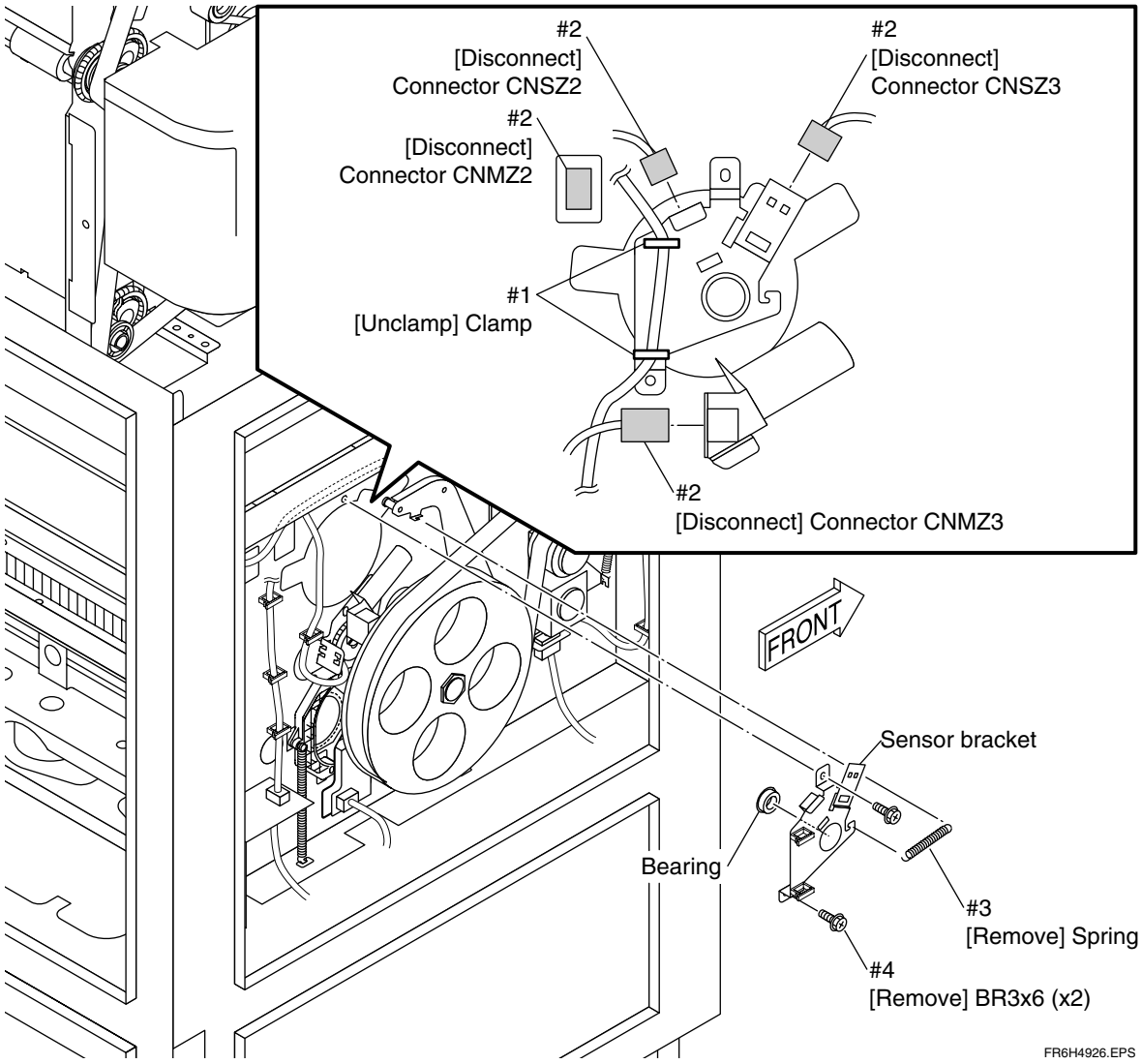
FR6H4962.EPS

■ Removal Procedures

(1) Remove the scanning optics unit.

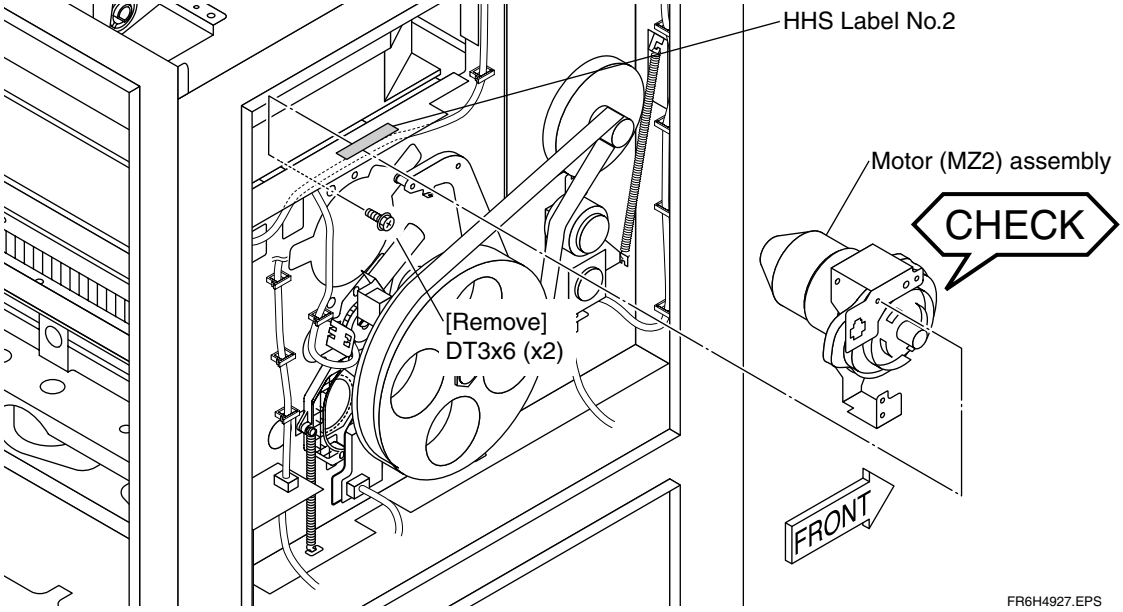
☞ “8.1 Scanning Optics Unit”

(2) Remove the sensor bracket.

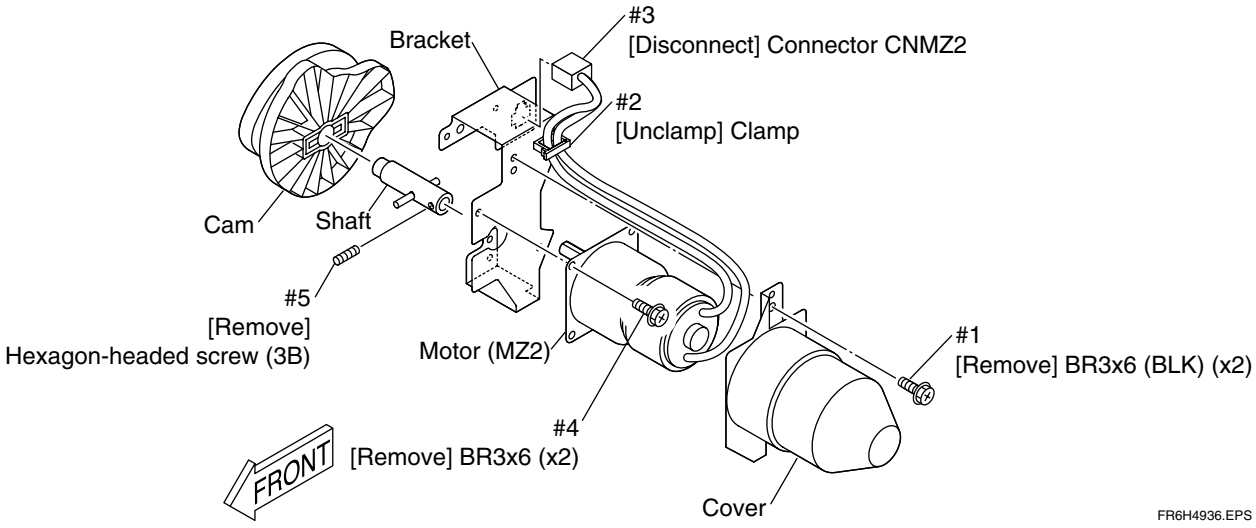


FR6H4926.EPS

(3) Remove the motor (MZ2) assembly.



(4) Remove the motor (MZ2).

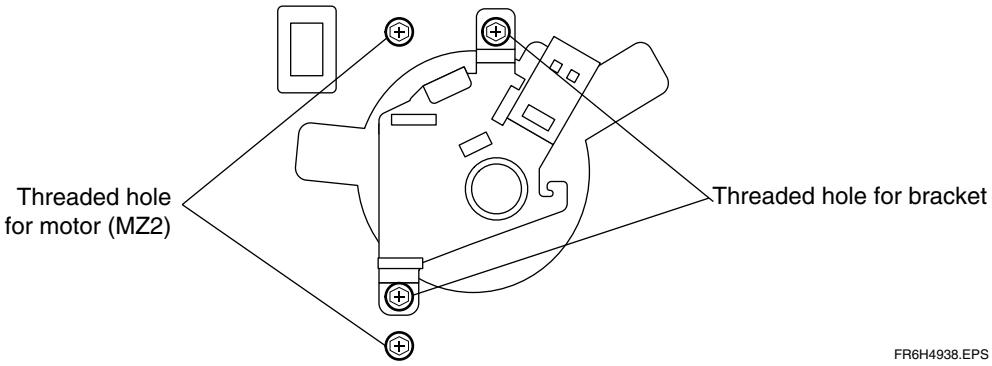


■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

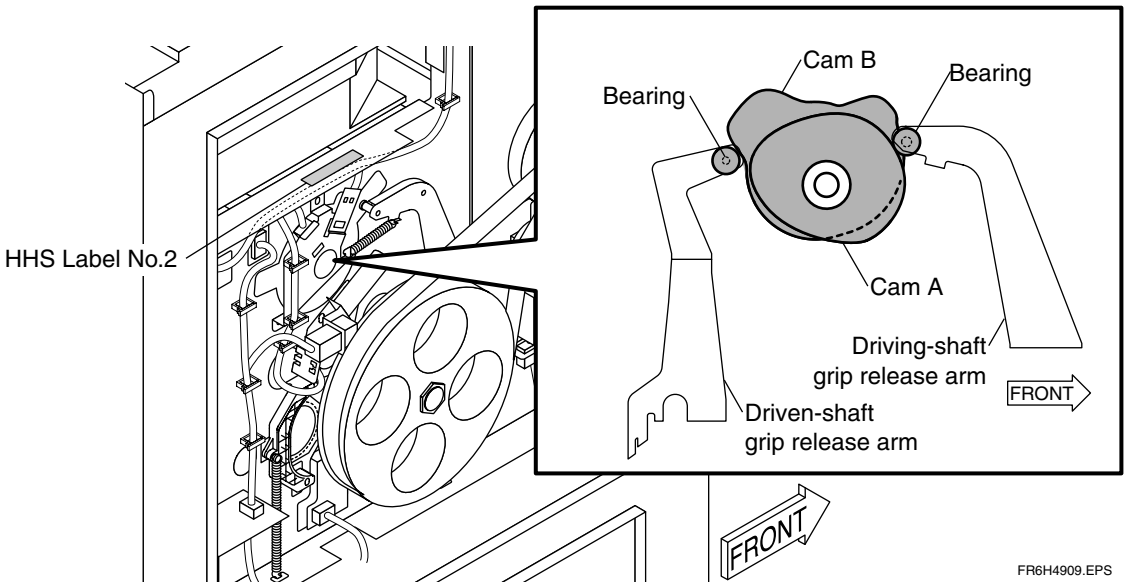
◇ *REFERENCE* ◇

The threaded holes for mounting the motor (MZ2) assembly are adjacent to the threaded holes for mounting the sensor bracket.
With reference to the illustration below, install the motor (MZ2) assembly and sensor bracket as appropriate.



■ Check/Adjustment Procedures

- Make sure that the bearing for the driving-shaft grip release arm is brought into contact with the outer periphery of the cam A and B.



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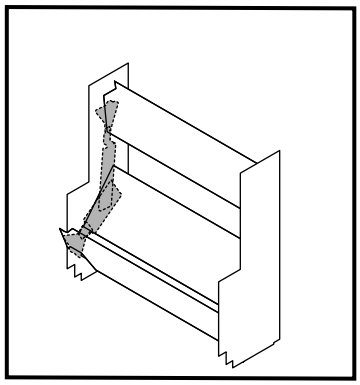
10.7 Motor (MZ3)



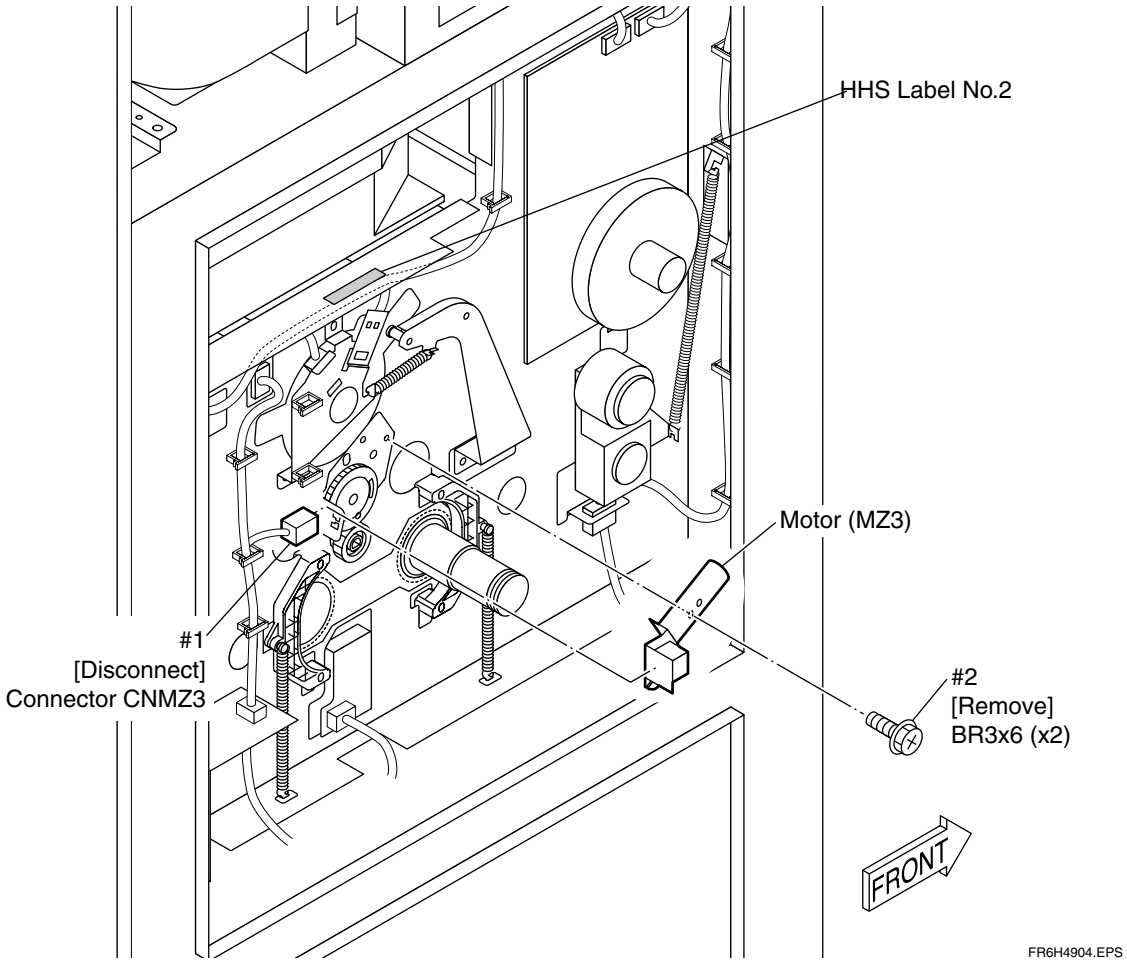
FR6H4653.EPS

■ Removal Procedures

(1) Remove the flywheel.

☞ "10.3 Flywheel"

(2) Remove the motor (MZ3).

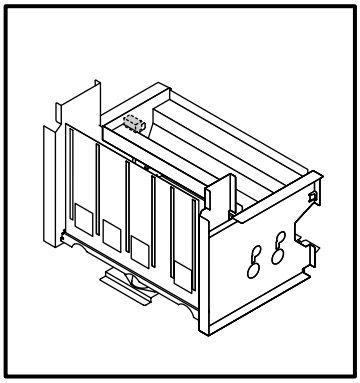


FR6H4904.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

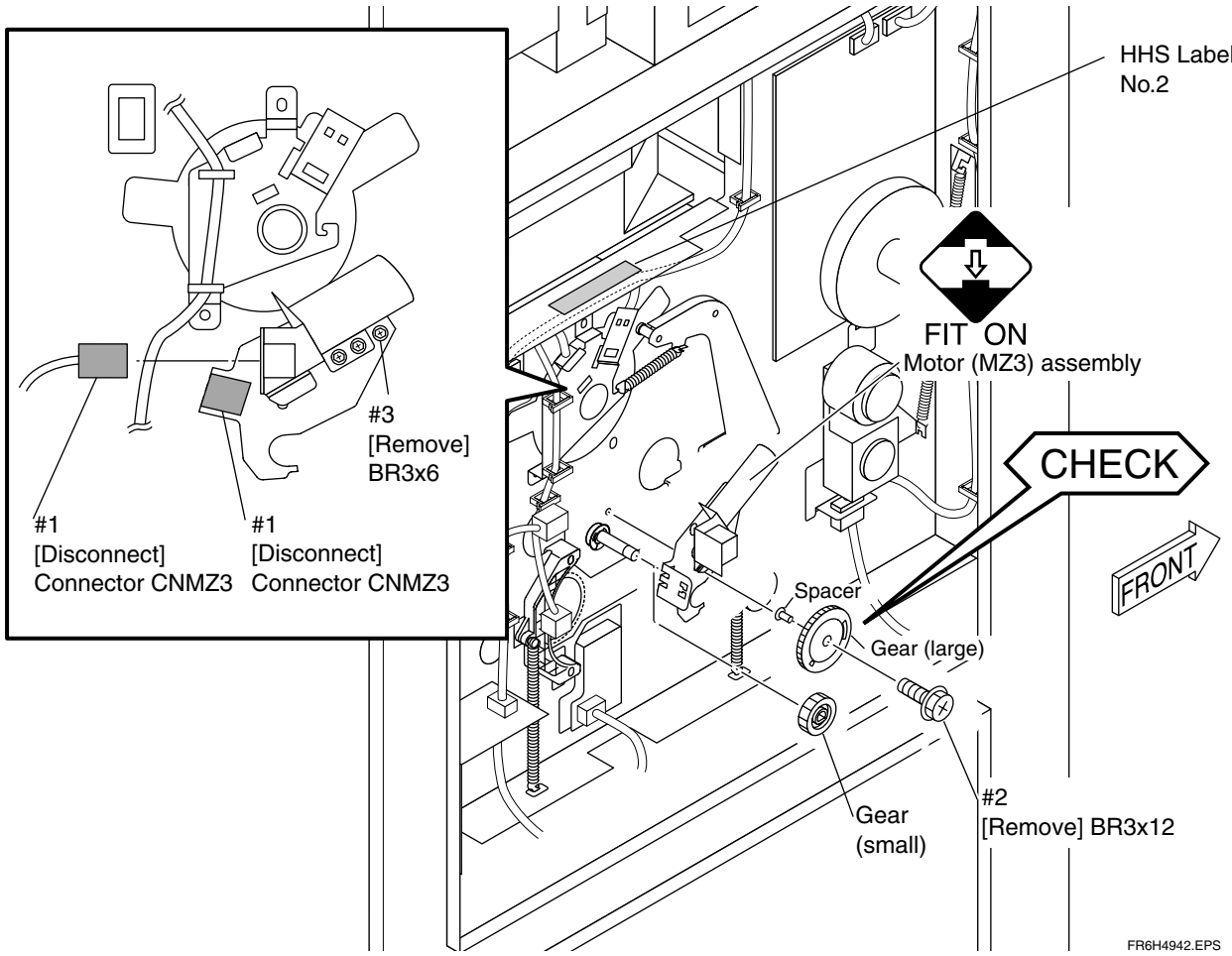
10.8 Sensor (SZ5)



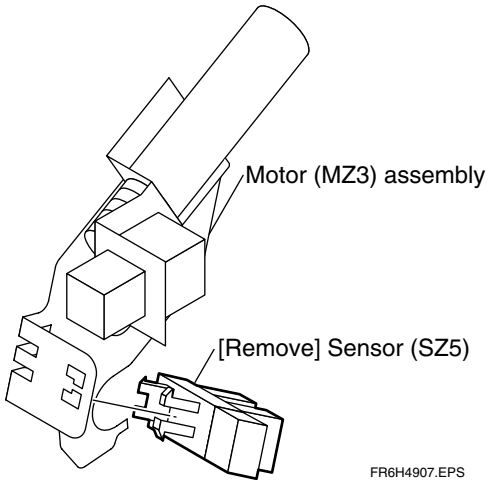
FR6H4954.EPS

■ Removal Procedures

(1) Remove the motor (MZ3) assembly.



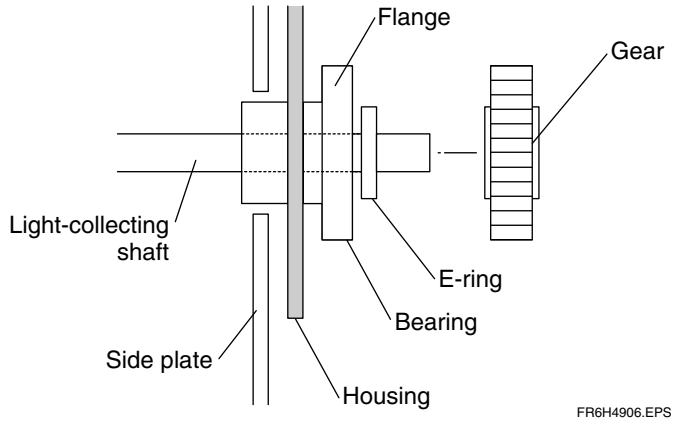
(2) Remove the sensor (SZ5).



■ Reinstallation Procedures

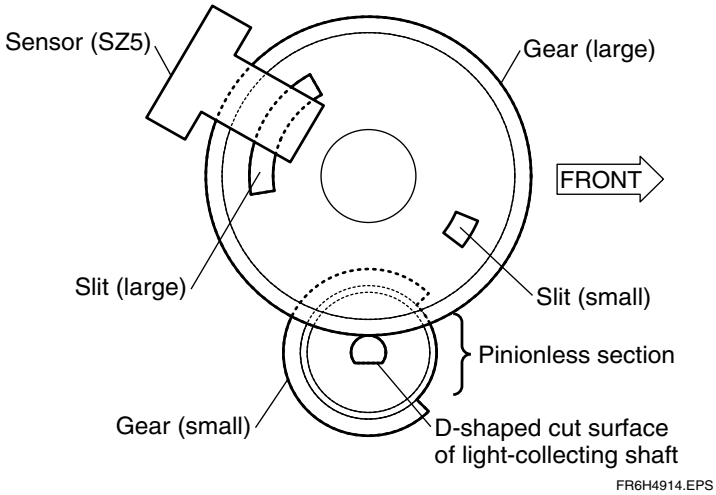
◆ *INSTRUCTION* ◆

When installing the motor assembly, ensure that the housing of the motor assembly is located between the flange of the bearing and the side plate.



◆ *INSTRUCTION* ◆

Refer to the illustration below when mounting the gear (large) and gear (small).



For reinstallation, reverse the removal steps.

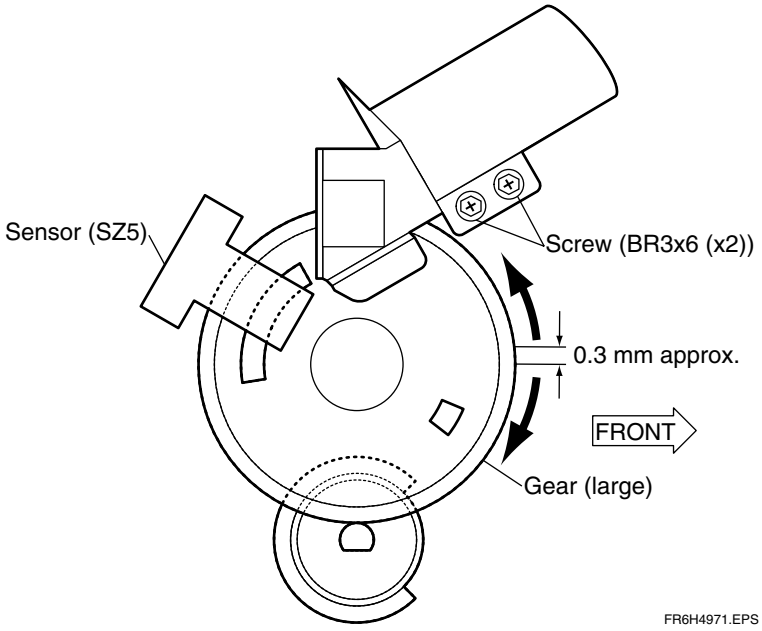
■ Check/Adjustment Procedures

(1) Check the engagement between the gear (large) and the worm gear of the motor (MZ3).

GOOD: There should be some backlash (about 0.3 mm).

NG: There is no backlash (the gear (large) and the worm gear of the motor (MZ3) move).

If the engagement between the gears is inappropriate, loosen the screws (BR3x6 (x2)) that retain the motor (MZ3). and adjust the engagement as appropriate.



(2) Power ON the CL/RU, and verify that a dust removal operation failure or dust removal function lock error does not occur.

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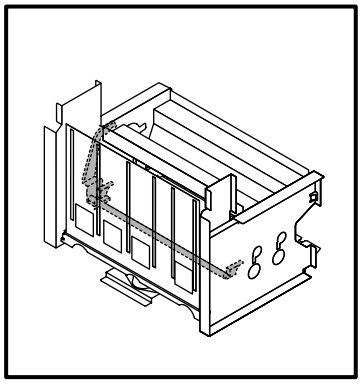
10.9 Driving-Shaft Grip Release Arm



FR6H4960.EPS

■ Removal Procedures

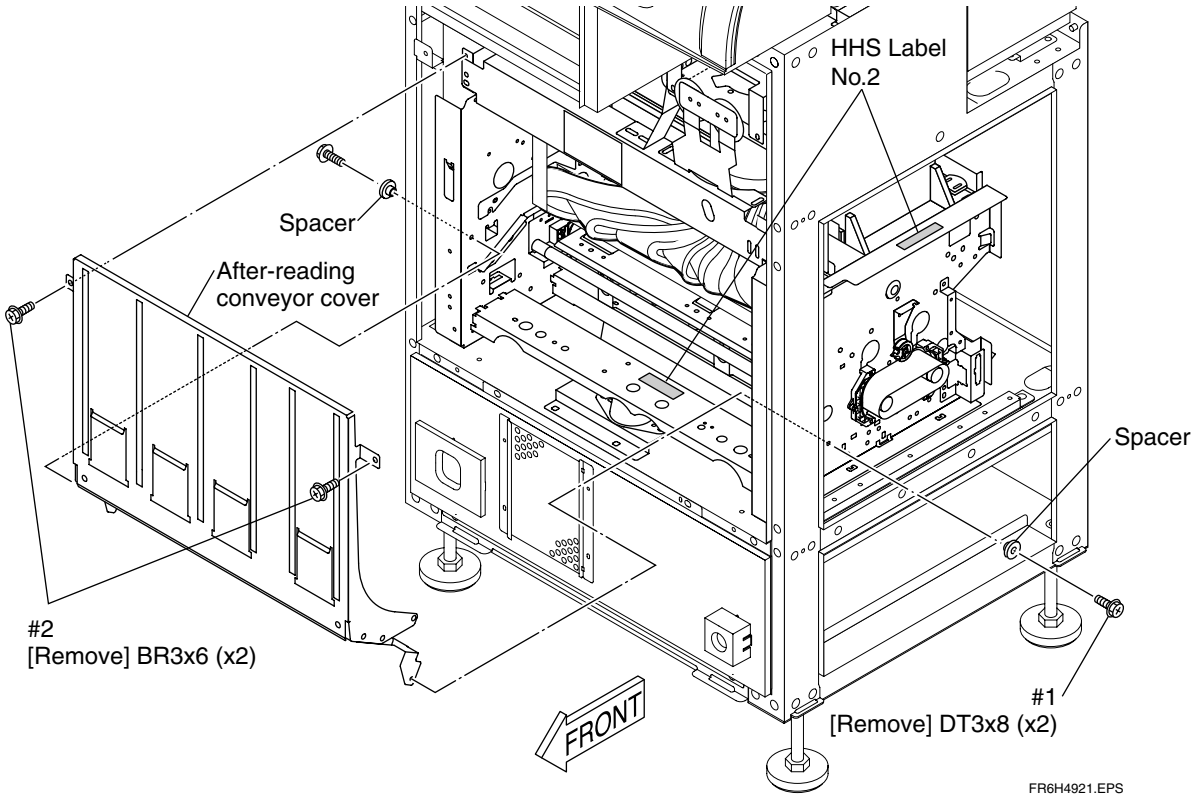
(1) Remove the covers.
- Front cover
- Top light protect plate
- Left-hand side cover
- Right-hand side cover

☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the flywheel.

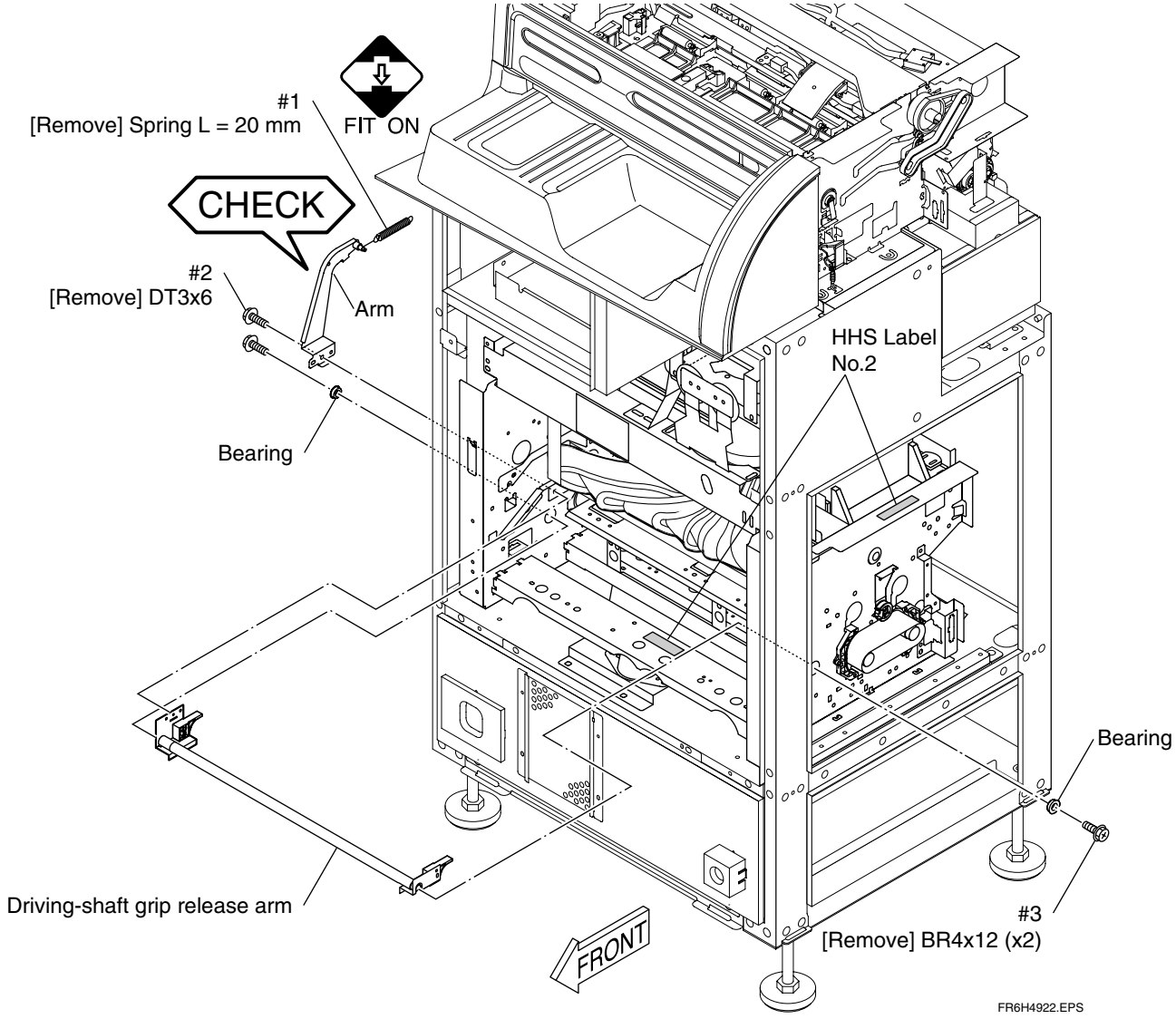
☞ "10.3 Flywheel"

(3) Remove the after-reading conveyor cover.

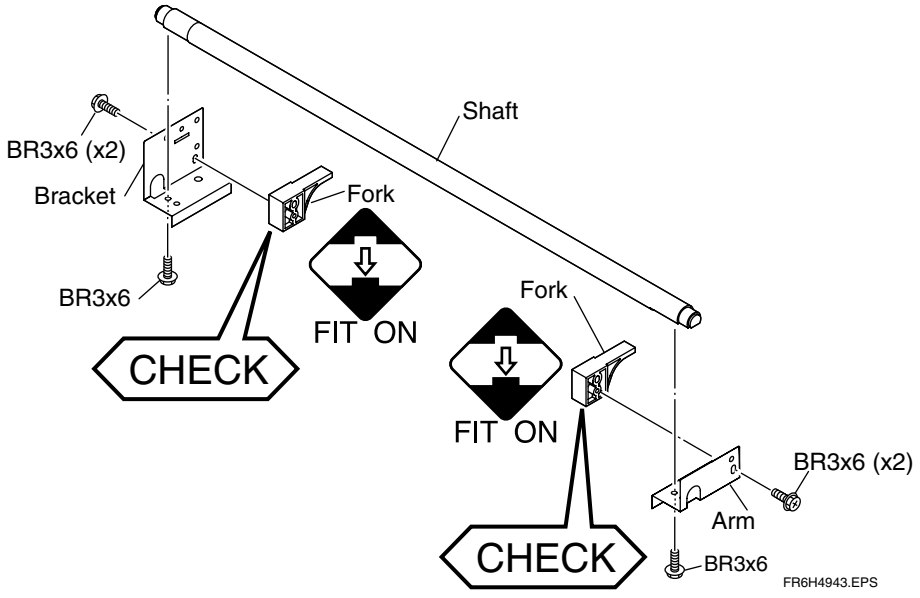


FR6H4921.EPS

(4) Remove the driving-shaft grip release arm.



■ Exploded View

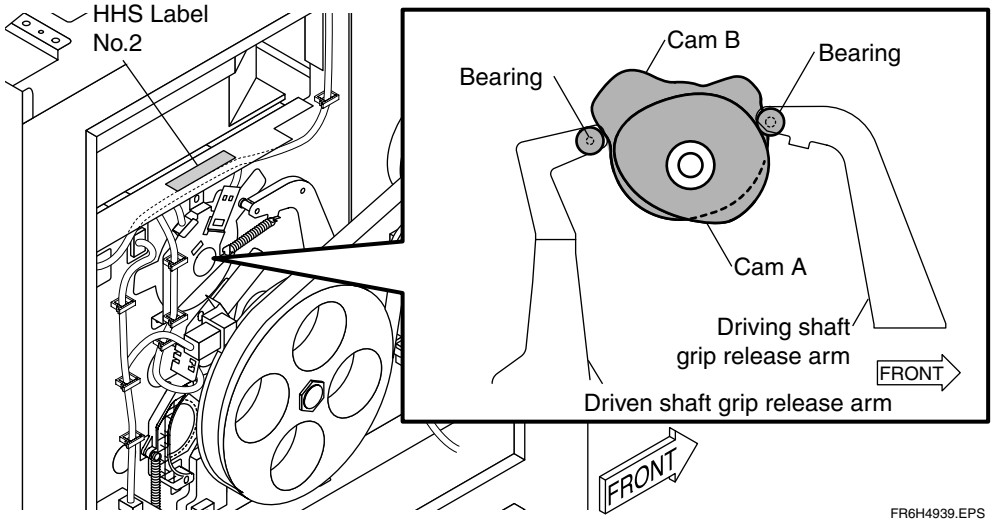


■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

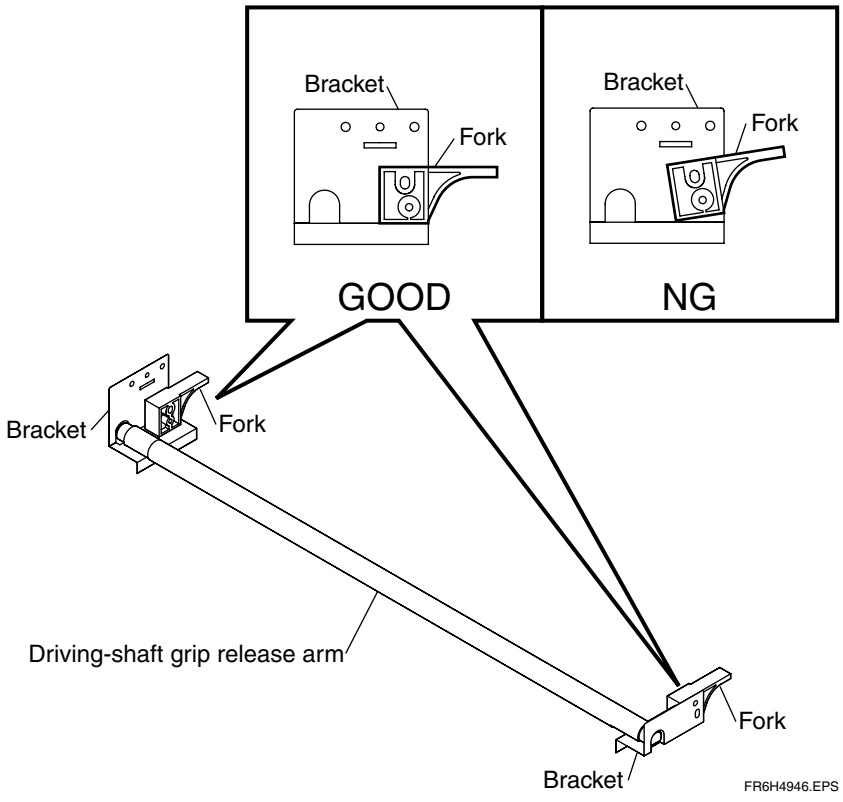
■ Check/Adjustment Procedures

- Make sure that the bearing for the driving-shaft grip release arm is brought into contact with the outer periphery of the cam A.



◆ *INSTRUCTION* ◆

When the fork for the driving-shaft grip release arm is removed and then reinstalled, make sure that there is no gap between the bracket and fork.



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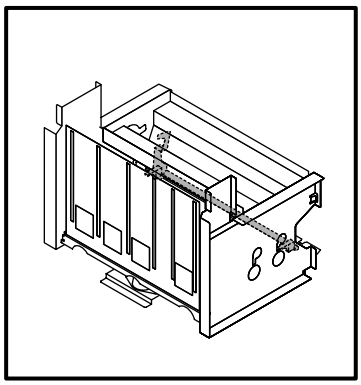
10.10Driven-Shaft Grip Release Arm



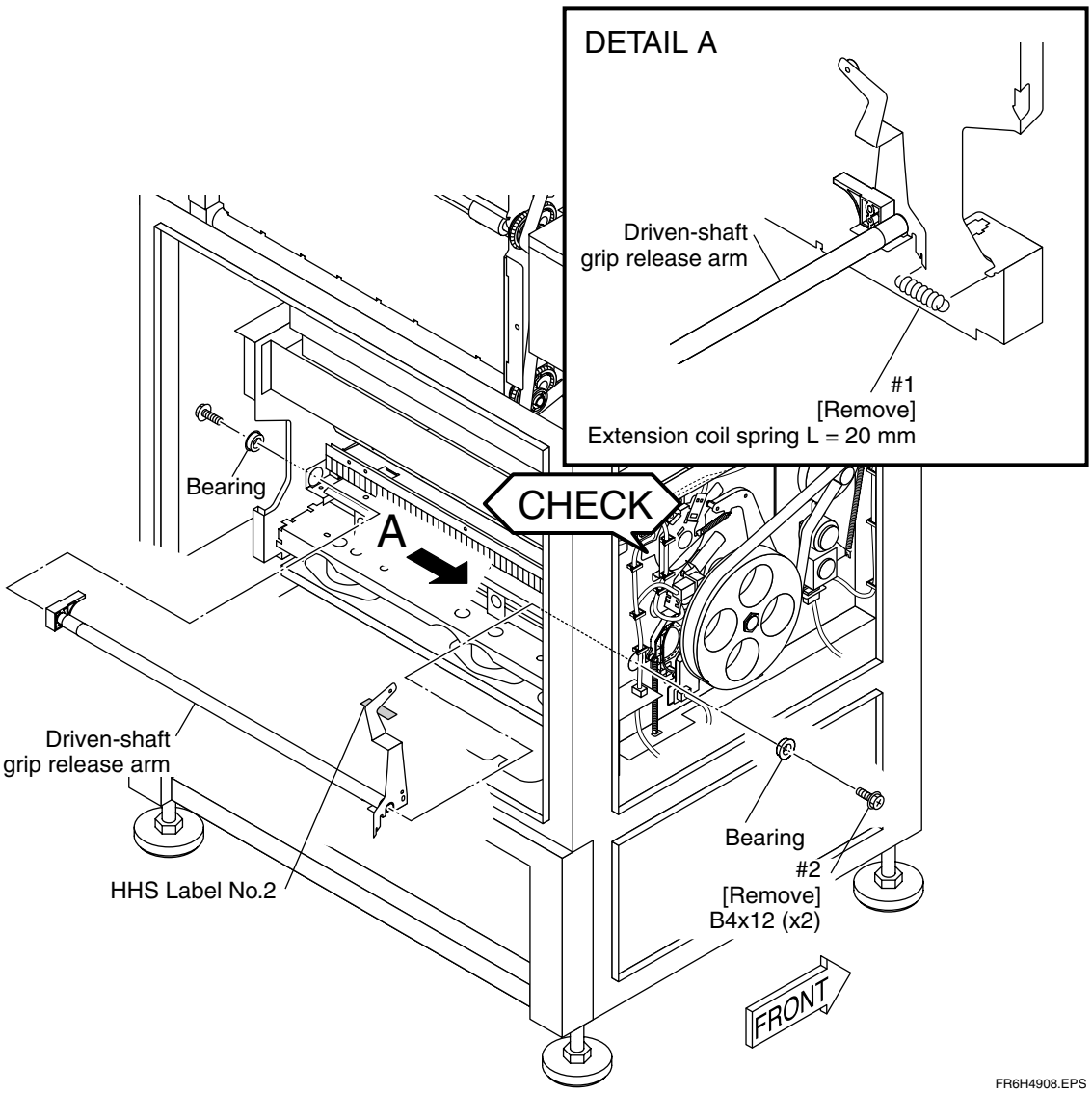
FR6H4955.EPS

■ Removal Procedures

(1) Remove the side-positioning conveyor.

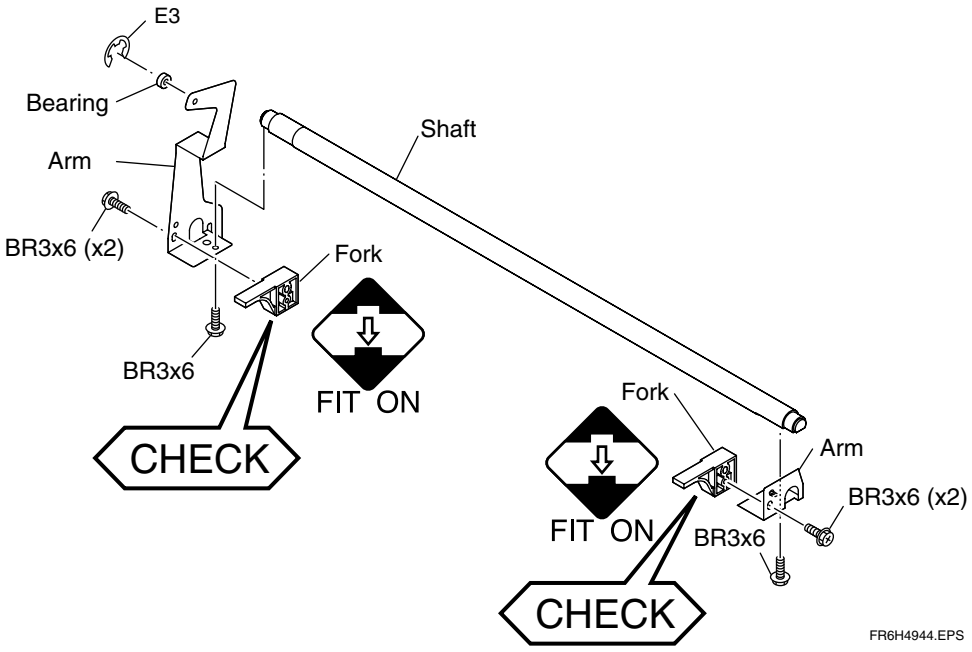
☞ "7.1 Side-Positioning Conveyor"

(2) Remove the driven-shaft grip release arm.



FR6H4908.EPS

■ Exploded View

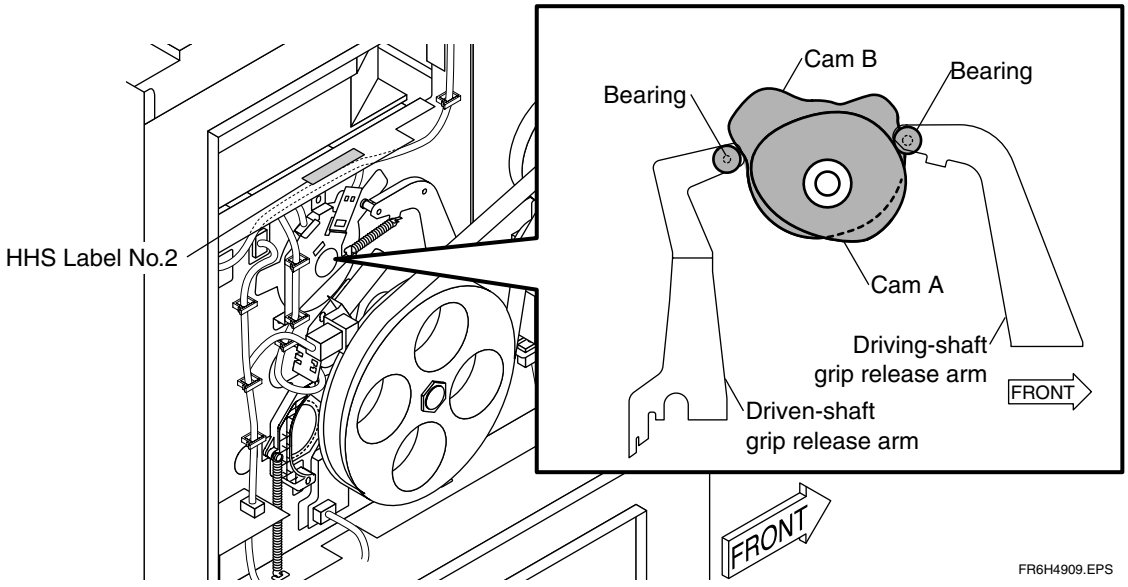


■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

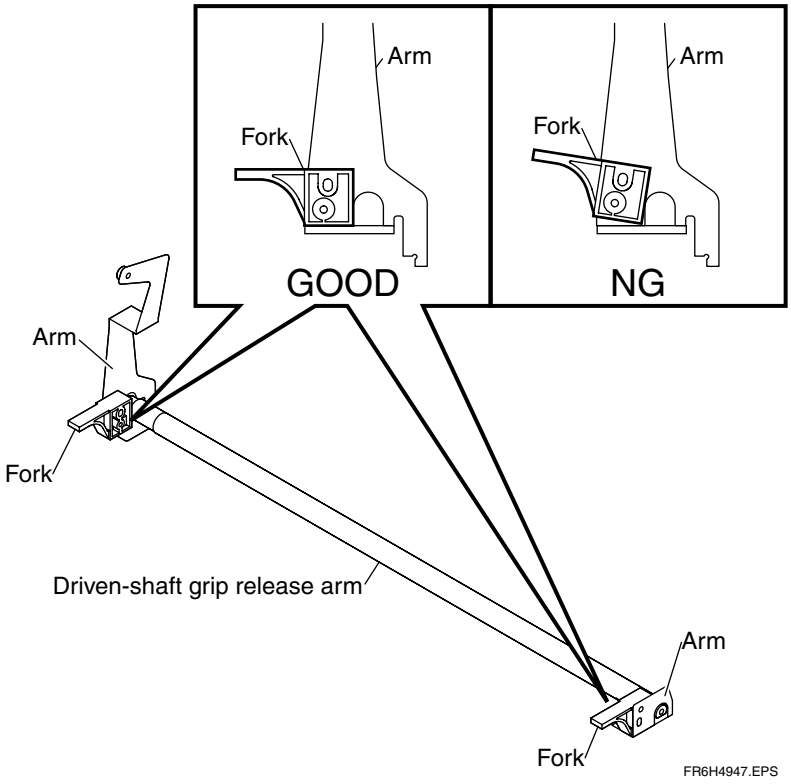
- Make sure that the bearing for the driving-shaft grip release arm is brought into contact with the outer periphery of the cam B.



■ Check/Adjustment Procedures

◆ *INSTRUCTION* ◆

When the fork for the driven-shaft grip release arm is removed and then reinstalled, make sure that there is no gap between the arm and fork.



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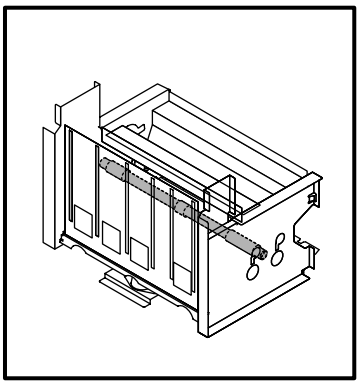
10.11 Driving-Shaft Grip Roller (Upper)



FR6H4961.EPS

■ Removal Procedures

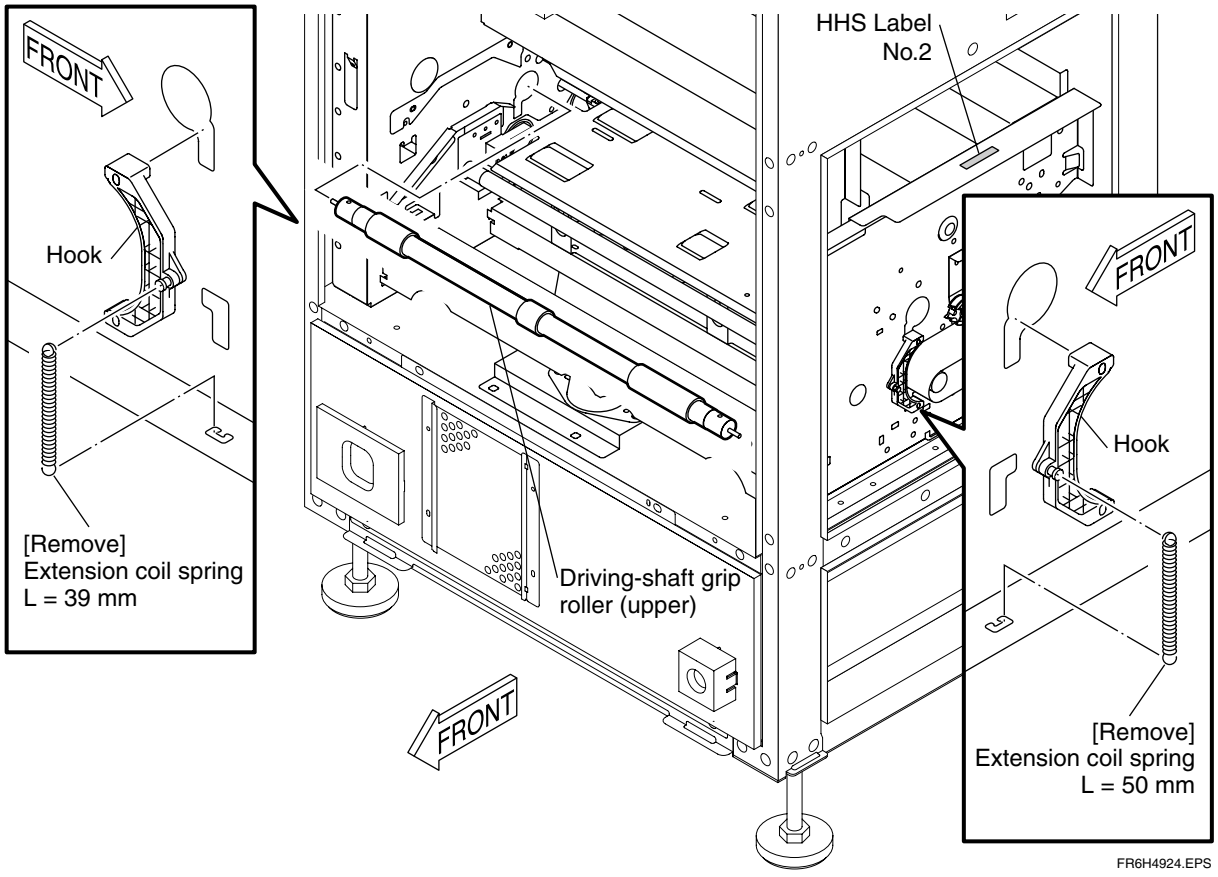
(1) Remove the light-collecting unit.

☞ "8.1 Light-Collecting Unit"

(2) Remove the flywheel.

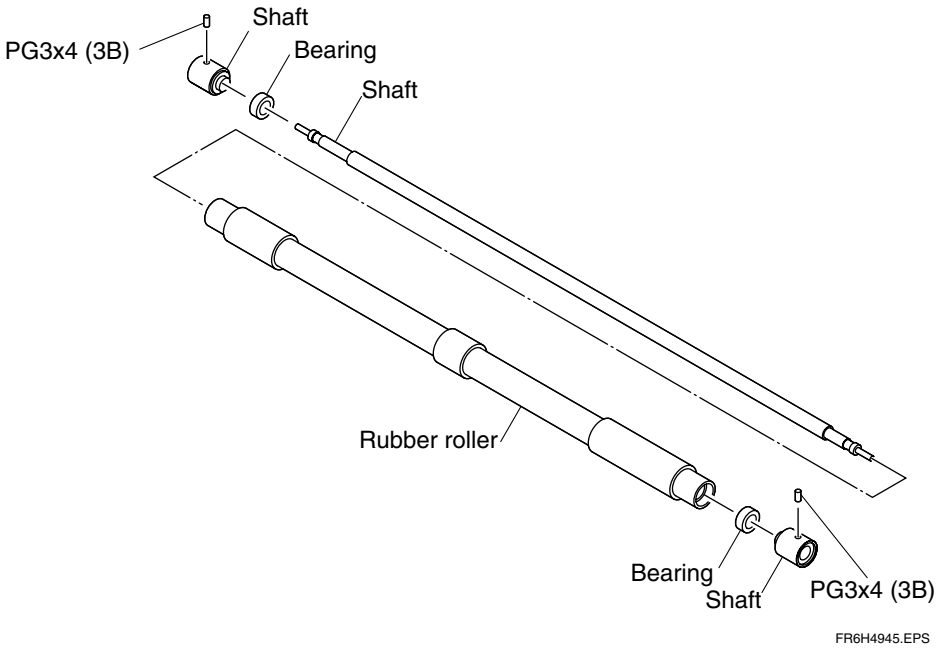
☞ "10.3 Flywheel"

(3) Remove the driving-shaft grip roller (upper).



FR6H4924.EPS

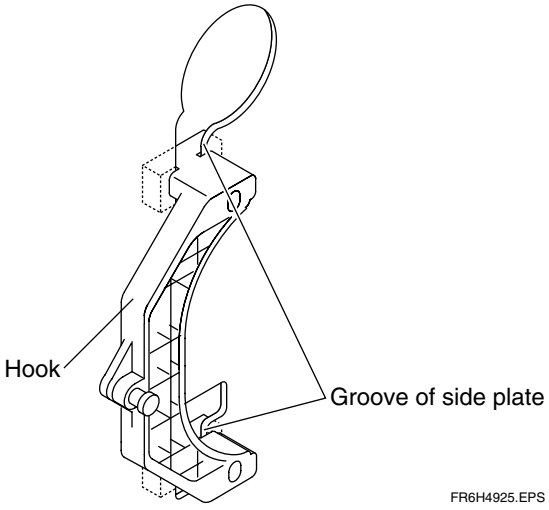
■ Exploded View



■ Reinstallation Procedures

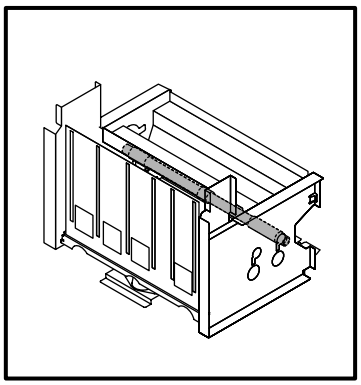
◆ *INSTRUCTIONS* ◆

- *The extension coil springs differ in size depending on where they are attached. Use care not to confuse their locations.*
- *To install the hook, snap it securely into the groove of the side plate.*



For reinstallation, reverse the removal steps.

10.12 Driven-Shaft Grip Roller (Upper)



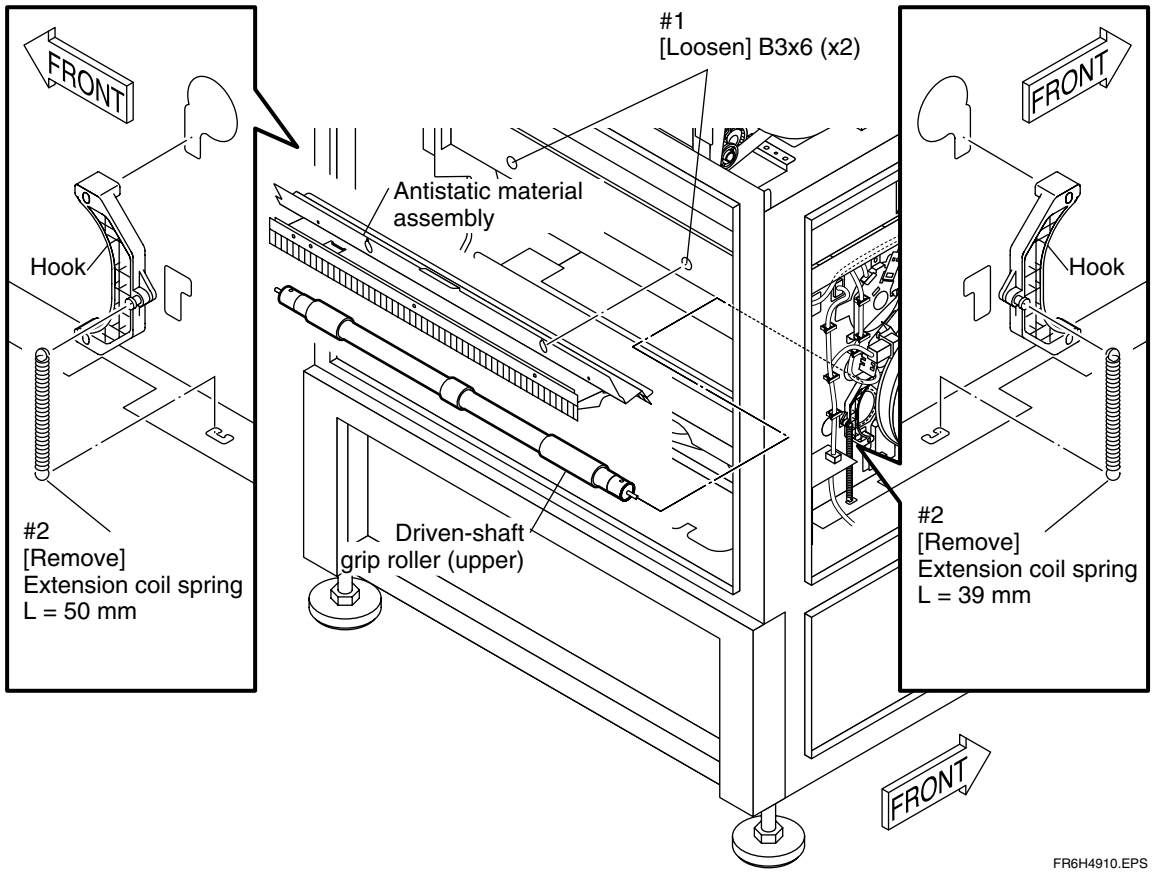
FR6H4956.EPS

■ Removal Procedures

(1) Remove the side-positioning conveyor.

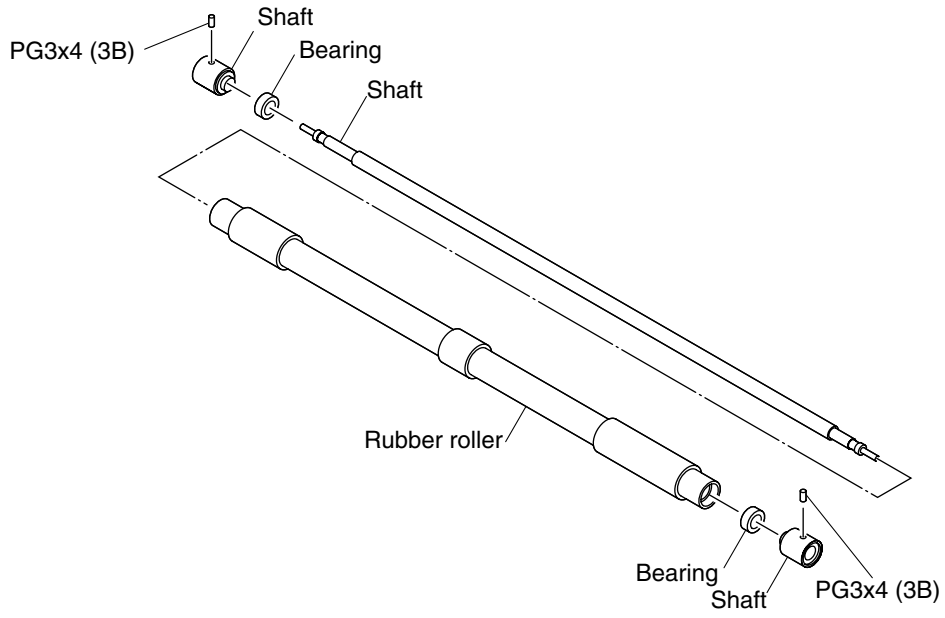
☞ "7.1 Side-Positioning Conveyor"

(2) Remove the driven-shaft grip roller (upper).



FR6H4910.EPS

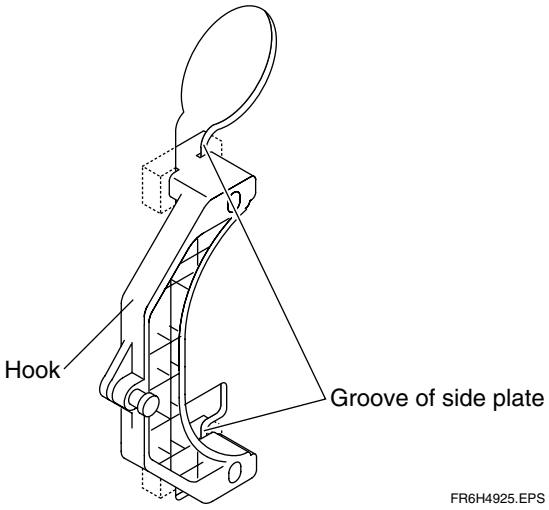
■ Exploded View



■ Reinstallation Procedures

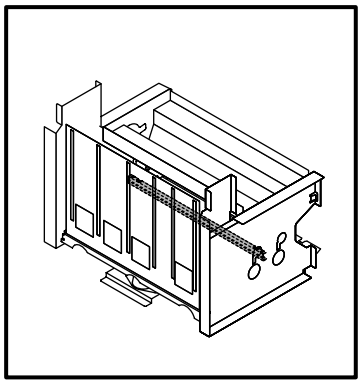
◆ *INSTRUCTIONS* ◆

- *The extension coil springs differ in size depending on where they are attached. Use care not to confuse their locations.*
- *To install the hook, snap it securely into the groove of the side plate.*



For reinstallation, reverse the removal steps.

10.13Light-Collecting Mirror



FR6H4957.EPS

◆ *INSTRUCTION* ◆

When handling the light-collecting mirror, pay attention to the following points.

- *Wear gloves.*
  However, never touch the reflection surface of the light-collecting mirror even when you are wearing the gloves.
- *Wear a mask so that saliva does not come into contact with the light-collecting mirror.*

■ Removal Procedures

(1) Remove the flywheel.

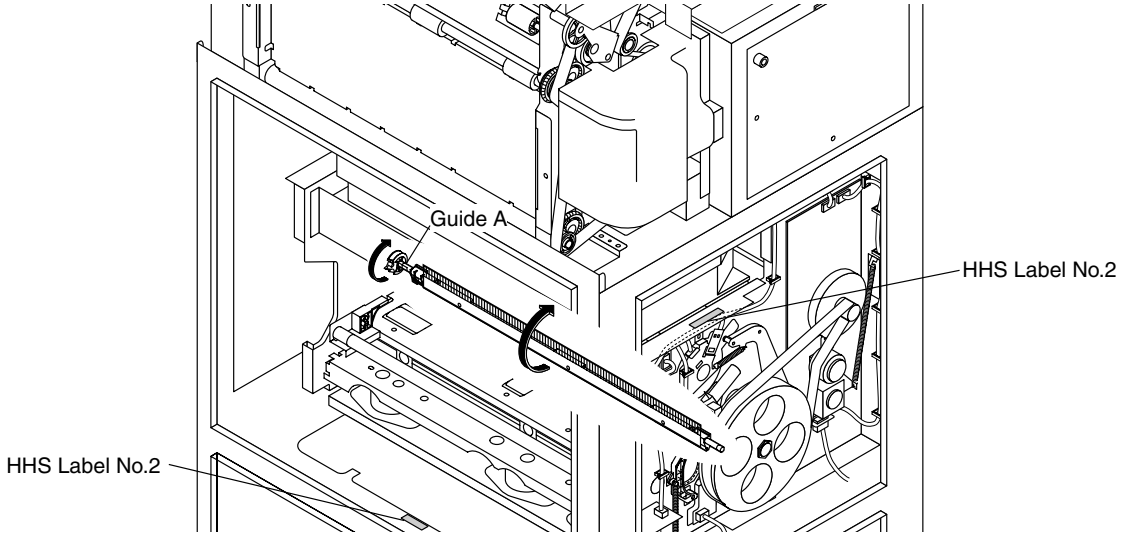
☞ “10.3 Flywheel”

(2) Remove the driven-shaft grip roller (upper).

☞ “10.12 Driven-Shaft Grip Roller (Upper)”

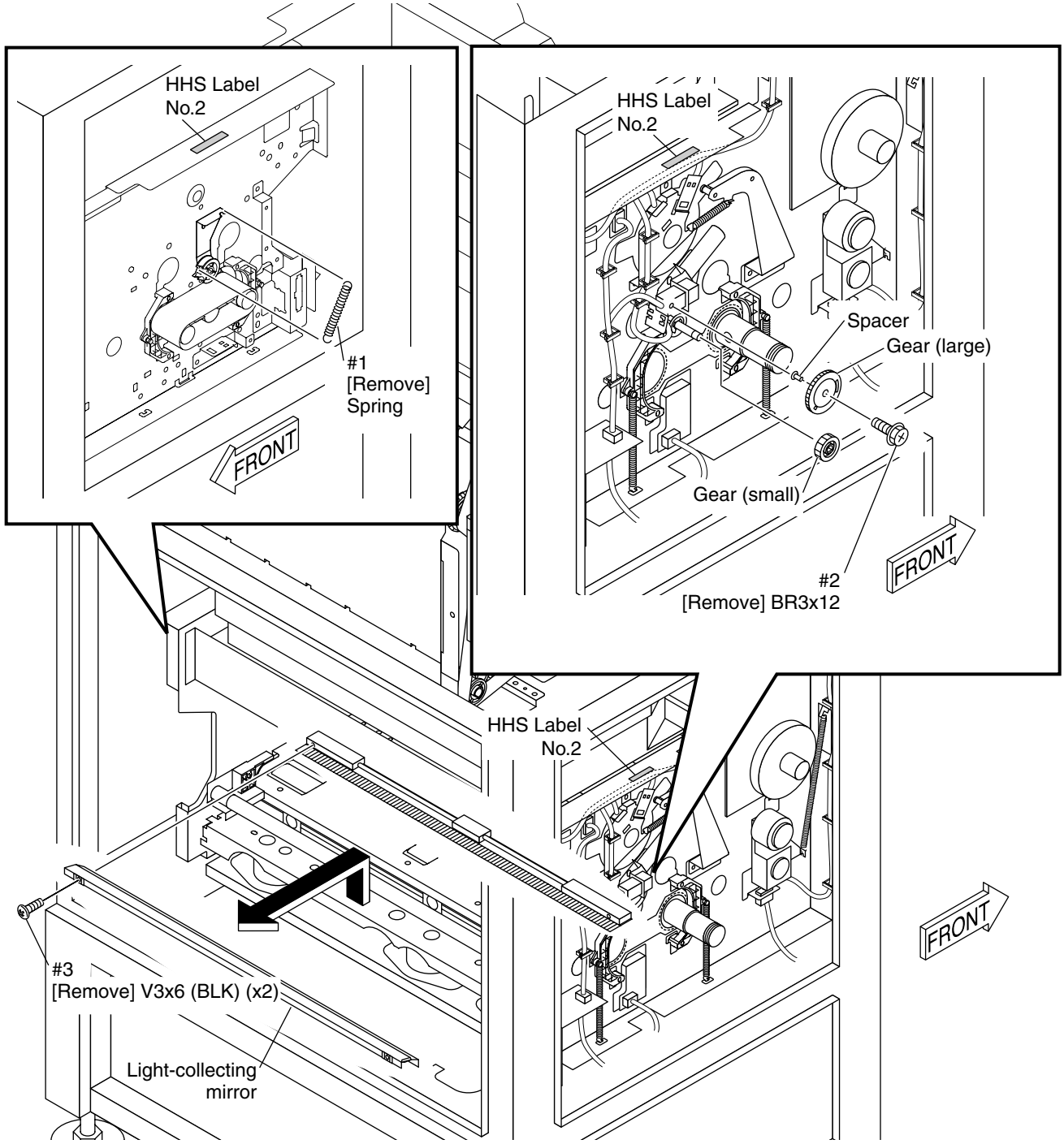
◇ *REFERENCE* ◇

When removing the light-collecting mirror, rotate the guide A in the direction of the arrow as illustrated below to facilitate access to the screw that retains the light-collecting mirror.



FR6H4912.EPS

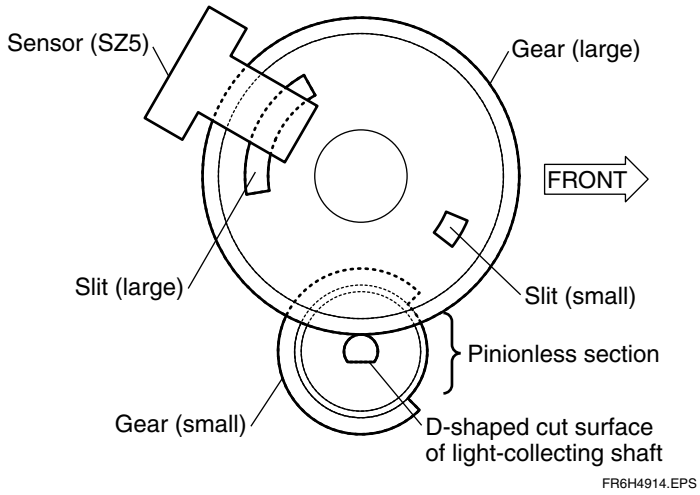
(3) Remove the light-collecting mirror.



■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

Refer to the illustration below when mounting the gear (large) and gear (small).



For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

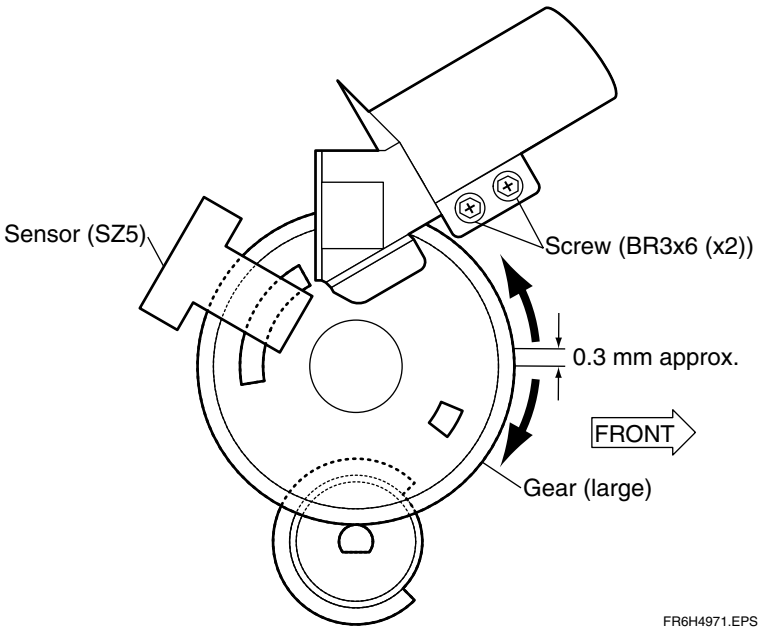
(1) Verify that the D-shaped cut surface of the light-collecting shaft and the gear (large) and gear (small) are mounted in their correct orientation.

(2) Check the engagement between the gear (large) and the worm gear of the motor (MZ3).

GOOD: There should be some backlash (about 0.3 mm).

NG: There is no backlash (the gear (large) and the worm gear of the motor (MZ3) move).

If the engagement between the gears is inappropriate, loosen the screws (BR3x6 (x2)) that retain the motor (MZ3). and adjust the engagement as appropriate.



(3) Power ON the CL/RU, and verify that a dust removal operation failure or dust removal function lock error does not occur.

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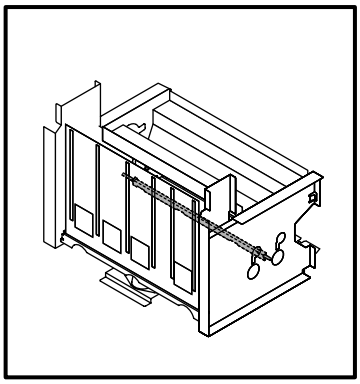
10.14 Light-Collecting Shaft



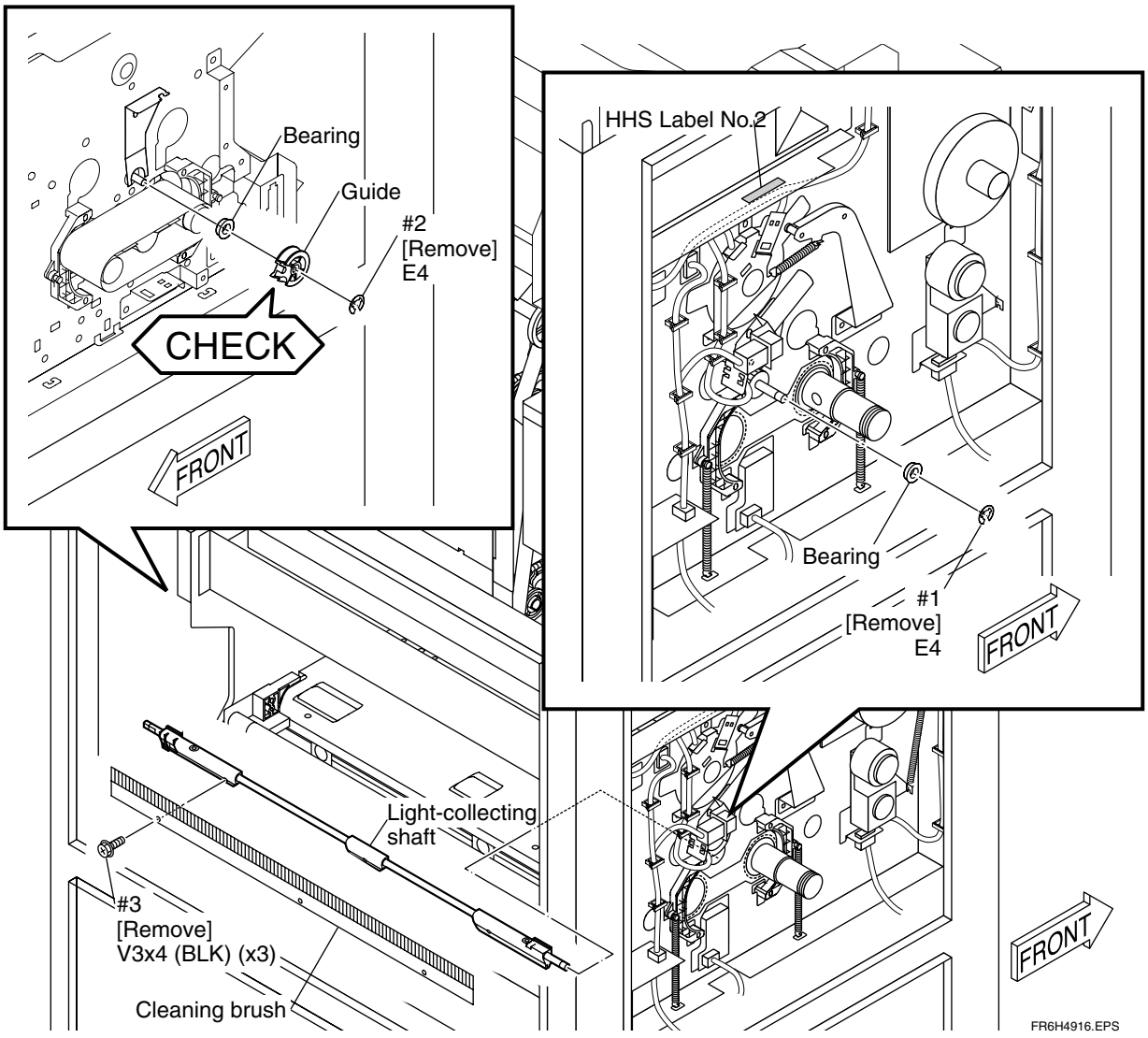
FR6H4958.EPS

■ Removal Procedures

(1) Remove the light-collecting mirror.

☞ "10.13 Light-Collecting Mirror"

(2) Remove the light-collecting shaft.

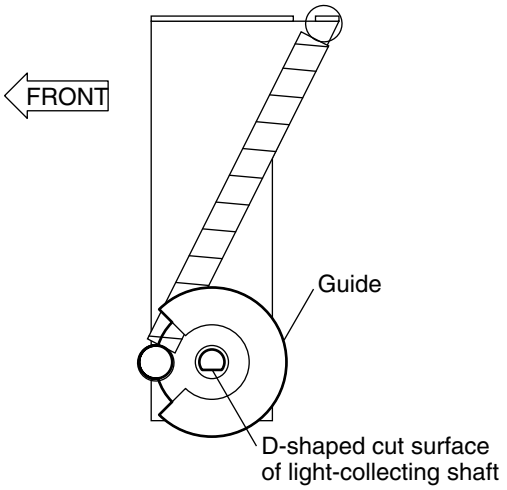


FR6H4916.EPS

■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

Install the guide in the orientation illustrated below.



FR6H4917.EPS

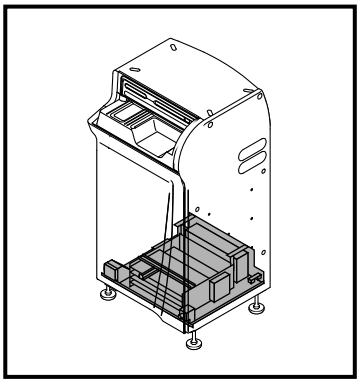
For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

- Make sure that the guide is mounted in its correct orientation.

11. Removing and Reinstalling the Controller

11.1 Controller



FR6H4A56.EPS

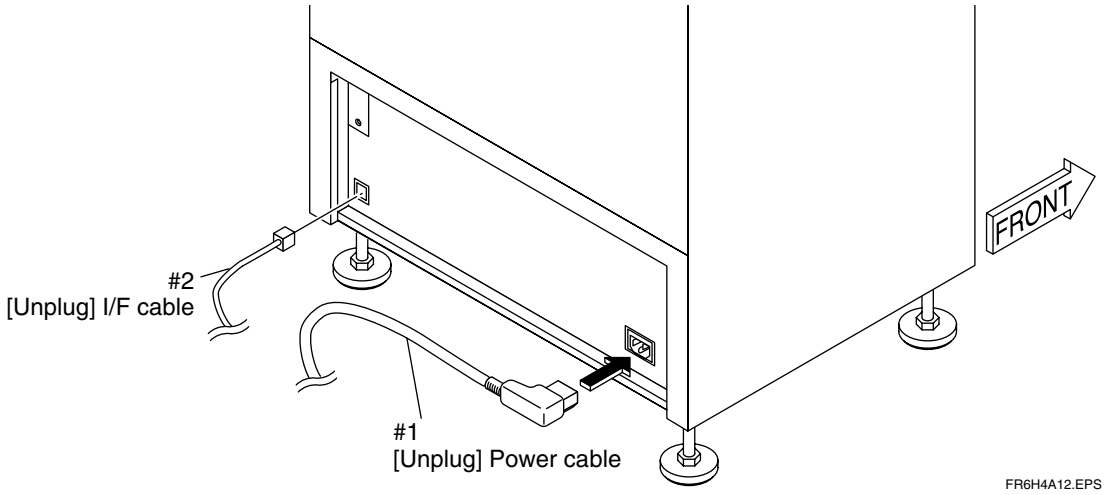
WARNING

To avoid electric shock hazards, turn OFF the breaker of the machine and unplug the power cable from the outlet before performing the procedures.

■ Removal Procedures

(1) Unplug the cables.

- Power cable
- I/F cable



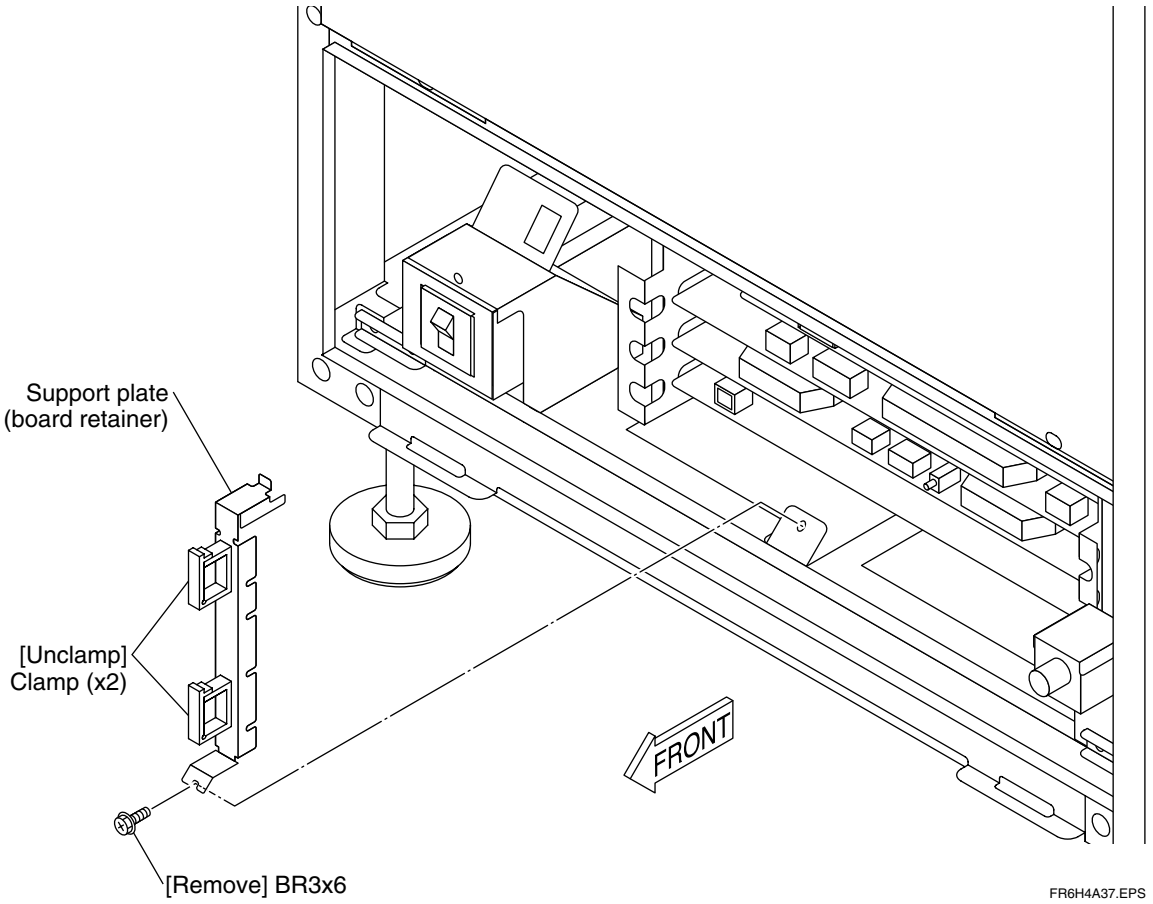
FR6H4A12.EPS

(2) Remove the covers.

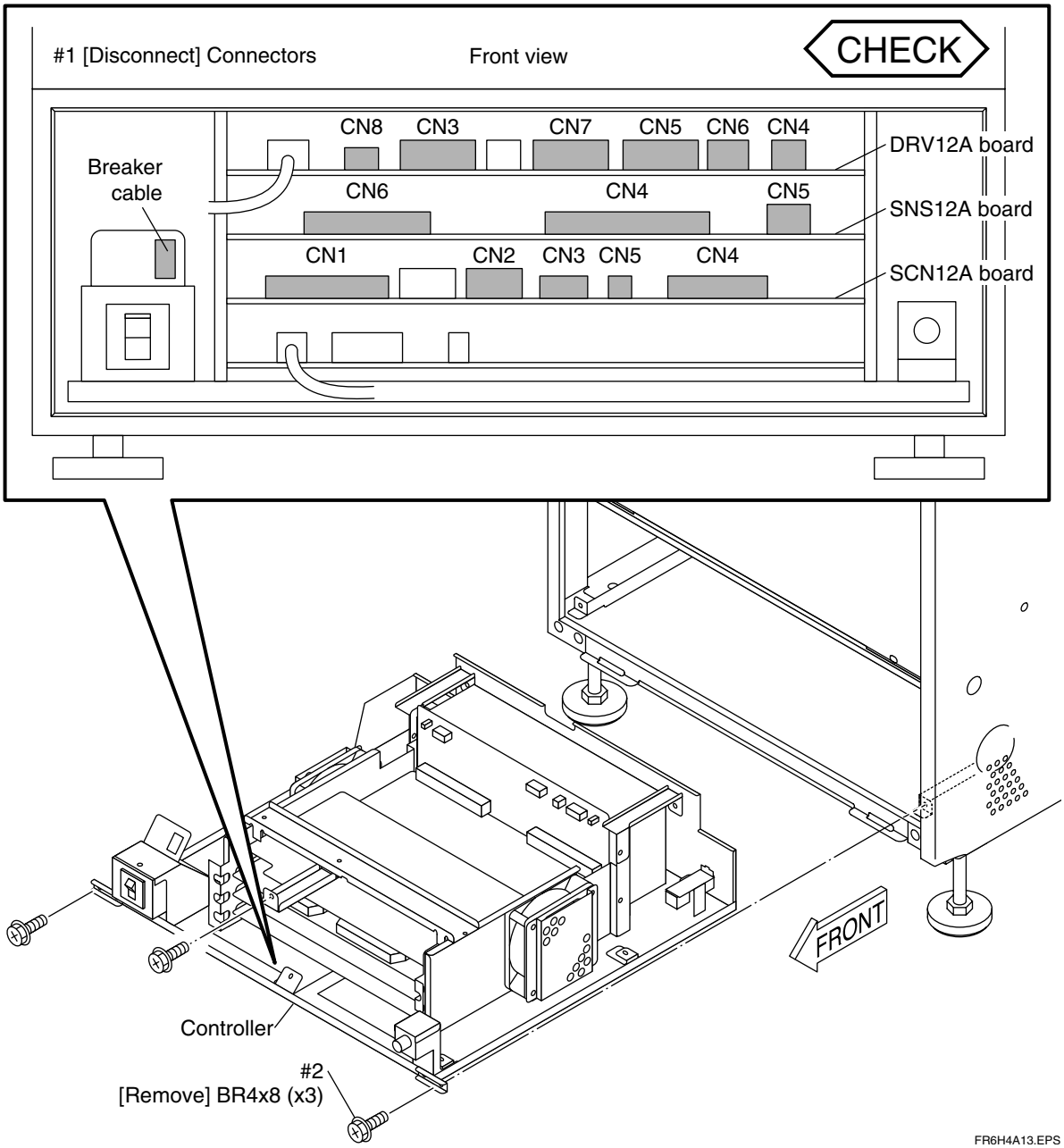
- Front cover
- Lower light protect plate

☞ "3.1 Removing and Reinstalling the Covers"

(3) Remove the support plate (board retainer).



(4) Remove the controller.



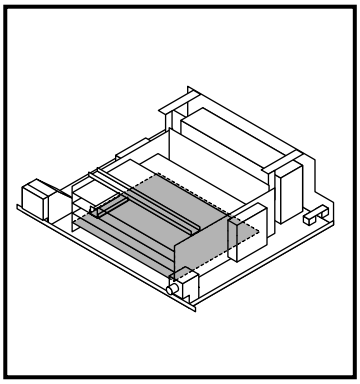
■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

■Check/Adjustment Procedures

• Make sure that the connectors are connected to their correct locations.

11.2 Replacing the CPU12A Board



FR6H4A51.EPS

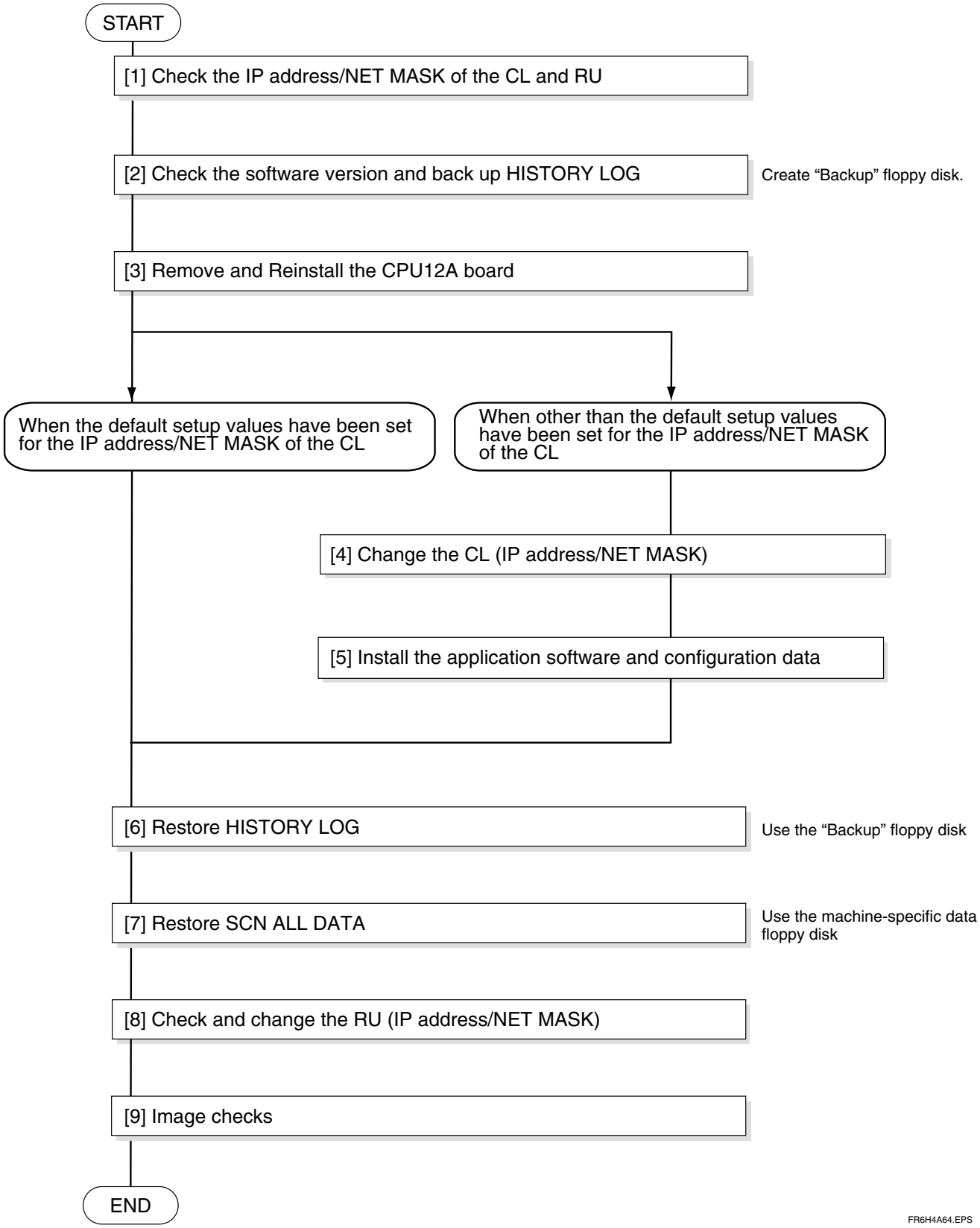
CAUTIONS

- *When the manganese lithium battery is completely drained, replace the board as a whole.*
- *Return the old board replaced to the Service Parts Center (manufacturer's factory).*
- *Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.*

CAUTION

When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.

A replacement flow for the CPU12A board is presented below.

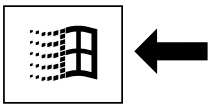

START
[1] Check the IP address/NET MASK of the CL and RU
[2] Check the software version and back up HISTORY LOG
Create “Backup” floppy disk.
[3] Remove and Reinstall the CPU12A board
When the default setup values have been set for the IP address/NET MASK of the CL
When other than the default setup values have been set for the IP address/NET MASK of the CL
[4] Change the CL (IP address/NET MASK)
[5] Install the application software and configuration data
[6] Restore HISTORY LOG
Use the “Backup” floppy disk
[7] Restore SCN ALL DATA
Use the machine-specific data floppy disk
[8] Check and change the RU (IP address/NET MASK)
[9] Image checks
END
FR6H4A64.EPS

[1] Check the IP address/NET MASK of the CL and RU

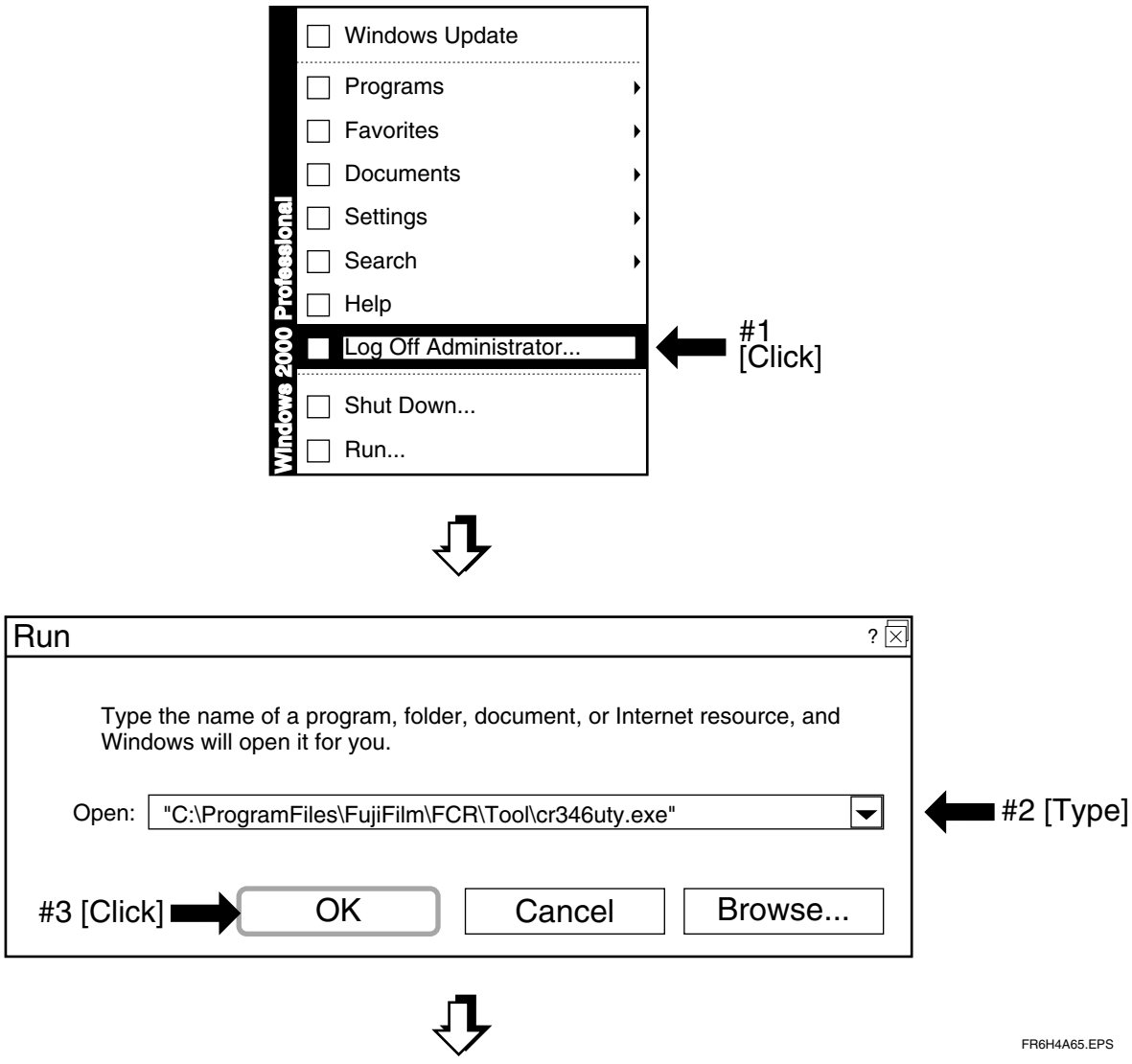
◆ *NOTE* ◆

When the CPU12A board is replaced, the IP address of a new CPU12A board is at its default setting, so that it cannot be connected to the CL. Here, check to see whether the user is using the default setting. If the default setting is not used, it is necessary to take note of the user's setting.

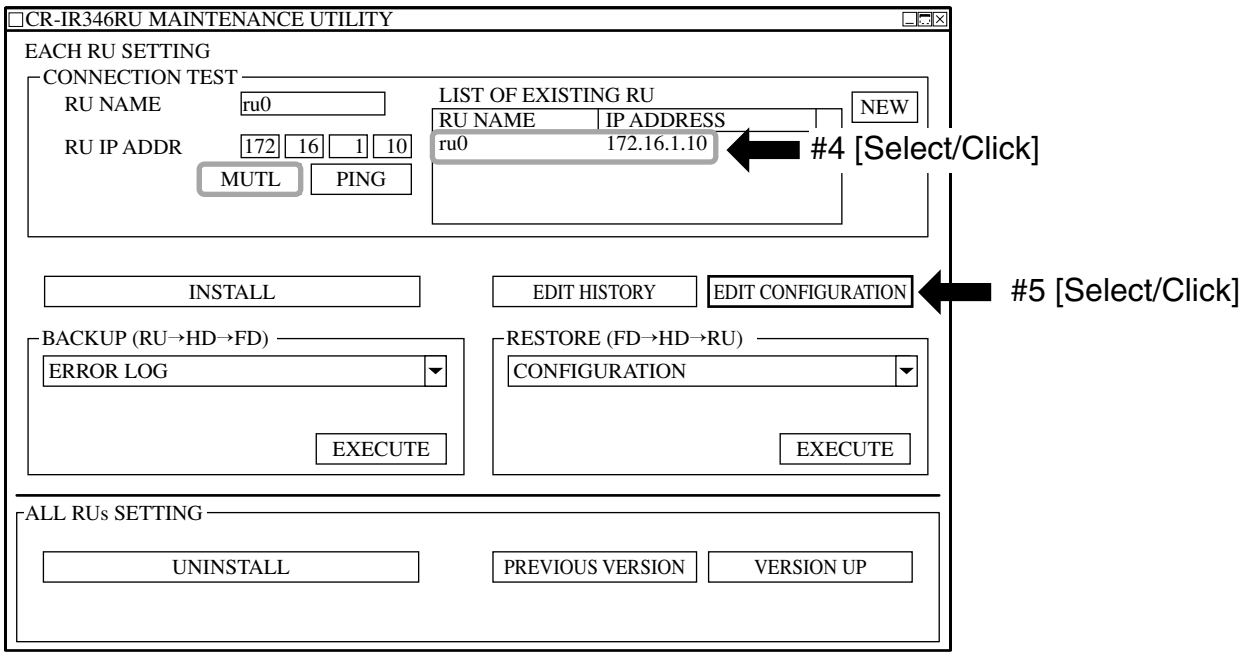
(1) Press the [Windows] key to open the Start menu of Windows.



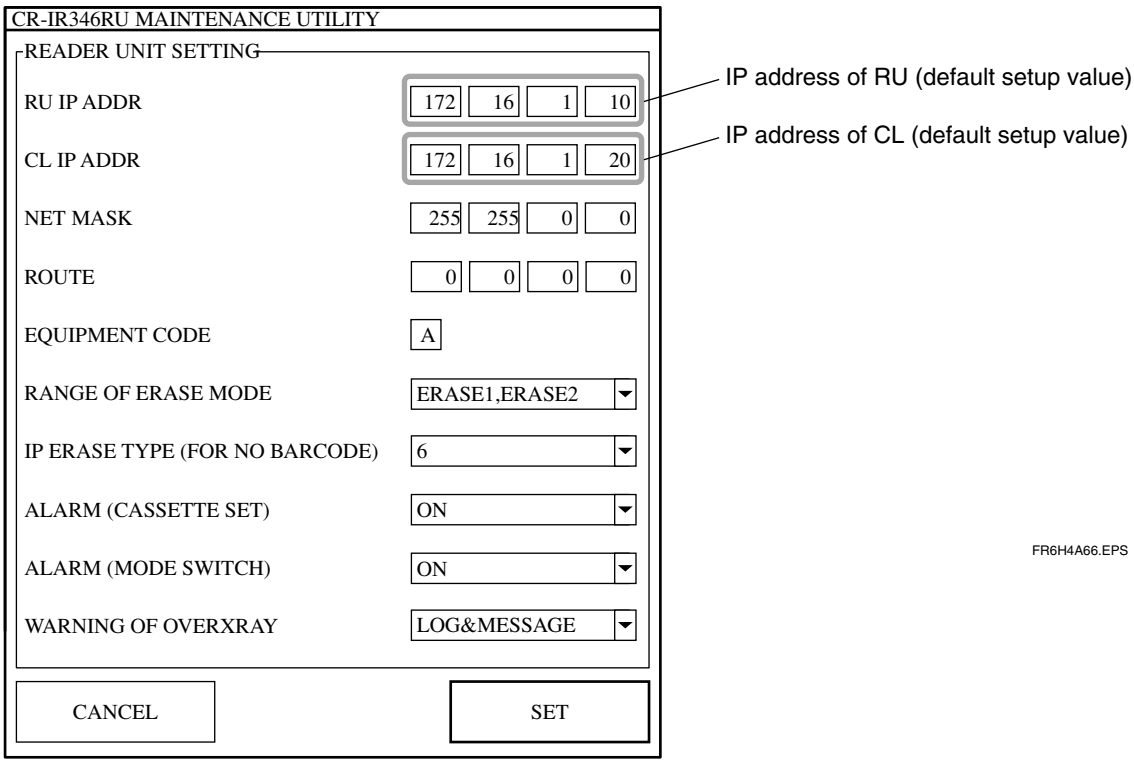
(2) Select [Run...] from the Start menu of Windows, and type ["C:\ProgramFiles\FujiFilm\FCR\Tool\cr346uty.exe"] to open the MAINTENANCE UTILITY, and display the EDIT CONFIGURATION window.



RU SERVICE UTILITY window



EDIT CONFIGURATION window



(3) Verify the IP address/NET MASK of the RU and CL.

(4) If the default setting is not used, take note of the values for “RU IP ADDR”, “CL IP ADDR”, and “NET MASK”.

[2] Check the software version and back up HISTORY LOG

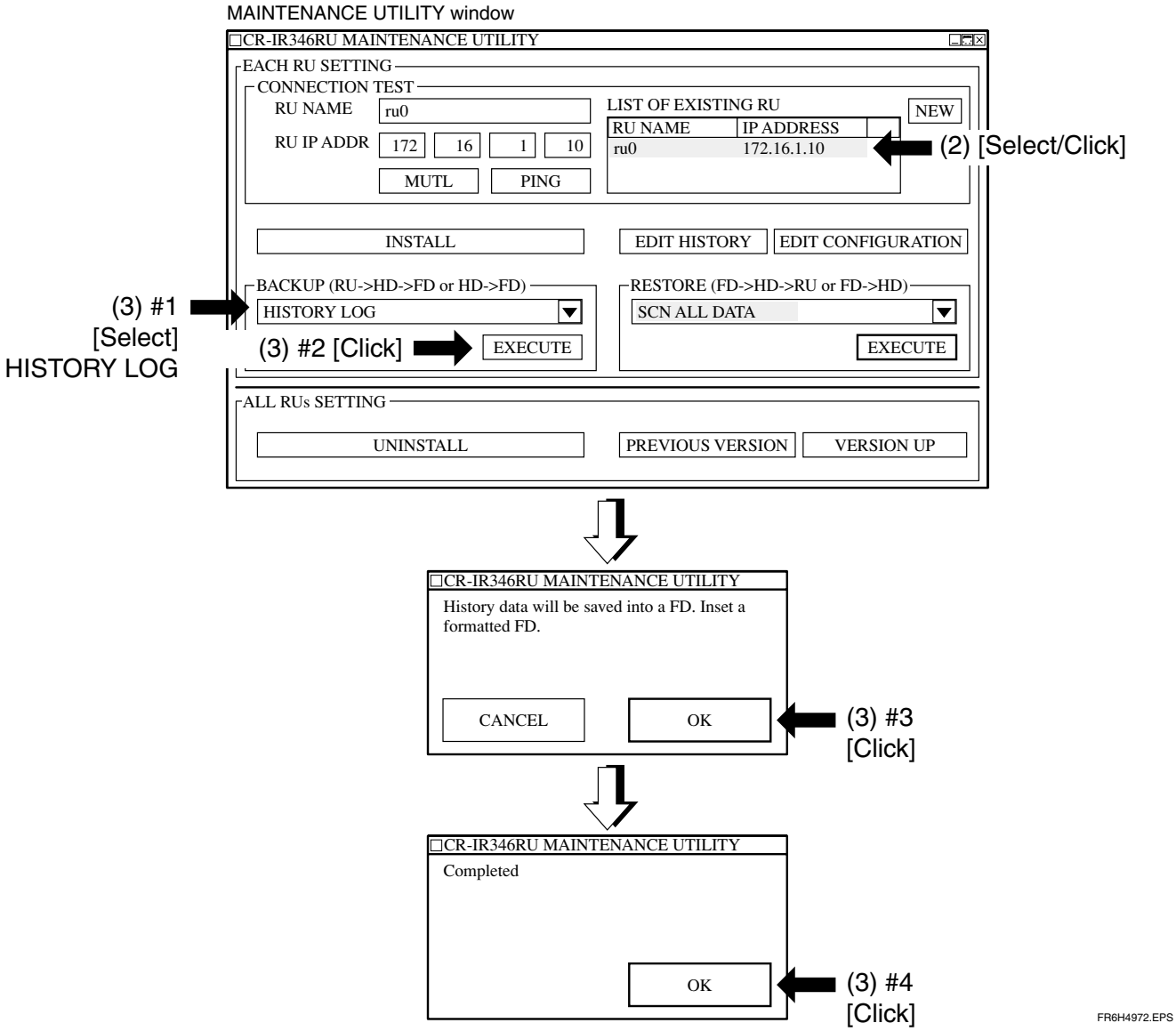
◆ *INSTRUCTIONS* ◆

- *If the software version of the RU is A02 or earlier, update the software version to A03 or later before replacing the CPU12A board.*
  ☞ *"13. Version Updating Procedures"*
- *Back up HISTORY DATA on the CPU12A board. Execute the backup in accordance with the instructions presented below.*

(1) Insert a blank floppy disk into the FD drive.

(2) Open the CR-IR346RU MAINTENANCE UTILITY window and select a relevant RU from "LIST OF EXISTING RU".

(3) Back up HISTORY LOG.



(4) Power OFF the RU.

[3] Remove and Reinstall the CPU12A board

■ Removal Procedures

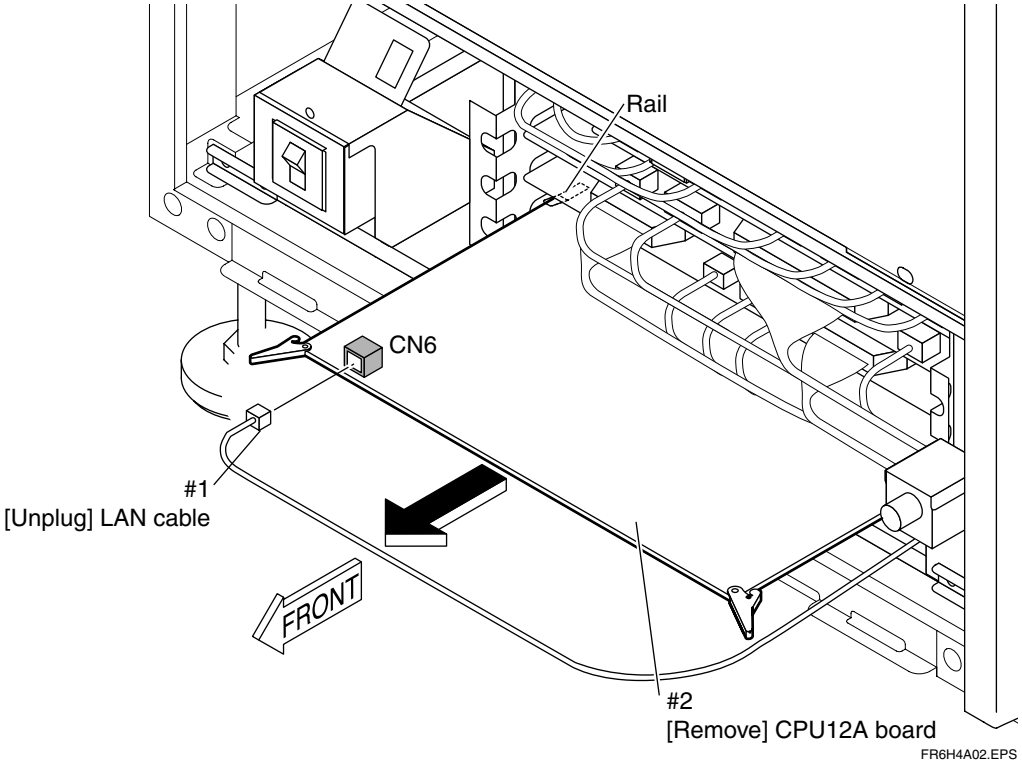
(1) Remove the covers.
- Front cover
- Lower light protect plate

☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the support plate (board retainer).

☞ "11.1 Controller"

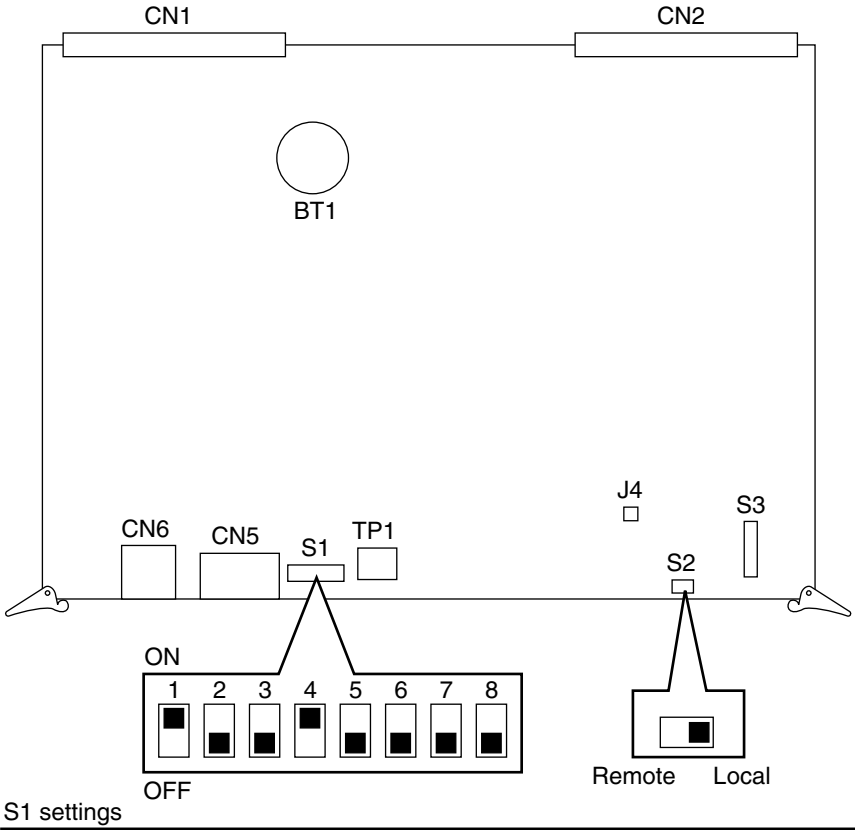
(3) Remove the CPU12A board.



■ DIP switch settings

◆ *INSTRUCTION* ◆

If the CPU12A board is replaced, make DIP switch settings as appropriate.



S1 settings

bit	Description	ON	OFF	Default (factory preset)
1	Service terminal connection enable/disable	—	—	ON (fixed)
2	For design analysis	—	—	OFF (fixed)
3	Cassette type selection	Metric	INCH	OFF (It varies depending on the specifications prior to shipment.)
4	Barcode reader availability selection	With BCR	Without BCR	ON
5	For design analysis	—	—	OFF (fixed)
6	Not used			OFF (fixed)
7	Not used			OFF (fixed)
8	For design analysis	—	—	OFF (fixed)

S2 settings

Description	Remote	Local	Default
Interlink with CL	—	—	Local (fixed)

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■Reinstallation Procedures

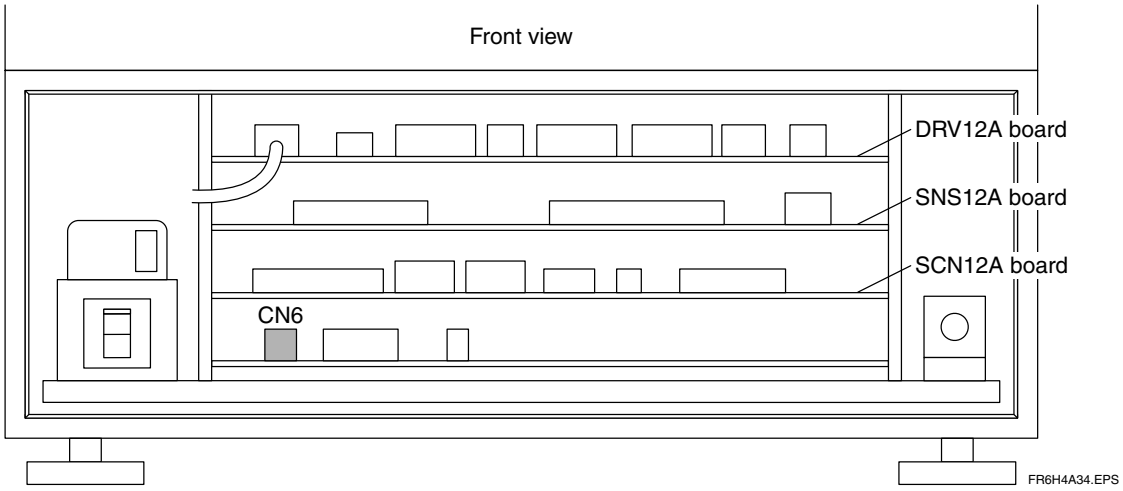
◆ ***NOTE*** ◆

When installing the CPU12A board, mount it along the rail.

For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedure

• Make sure that the connector is connected to its correct location.



[4] Change the CL (IP adress/NETMASK)

■ Changing the CL (IP Address/NET MASK) (from User Setting to Default Setting)

◆ *NOTES* ◆

- *When the CPU12A board is replaced with a new one, it is necessary to change the IP address and NET MASK settings of the CL.*
- *For the machine where the IP address of the CL has been set at its default value, it is unnecessary to perform the procedures described here.*

(1) Power ON the RU.

(2) Switch the CL screen to the desktop screen.

◇ *REFERENCE* ◇

To switch the CL screen to the desktop screen, hold down the <SHIFT> key and select "Shut Down" from the "FUJI FILM" menu.

(3) Double-click

on the desktop.

⇨ The "My Computer" window opens.

(4) Double-click

.

⇨ The "Control Panel" window opens.

(5) Double-click

.

➪ The “Network and Dial-up connection” window opens.

(6) Double-click

.

➪ The “Local Area Connection” window opens.

◇ *REFERENCE* ◇

On Windows 2000, the “Local Area Connection” icon may not appear on the display if your PC is not connected to other equipment (RU) with a network cable.

(7) Click

.

➪ The “Local Area Connection Properties” window opens.

(8) Choose

and then click

.

➪ The “Internet Protocol (TCP/IP) Properties” window opens.

(9) Choose

.

(10) Perform the following setup steps:

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(11) Click

.

➪ You are returned to the “Local Area Connection Properties” window.

(12) Click

.

➪ The system returns to the desktop screen.

◇ *REFERENCE* ◇

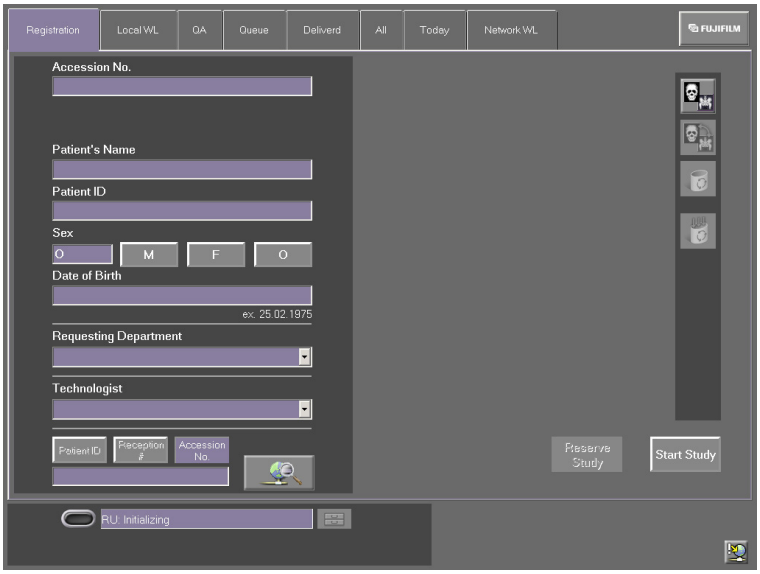
When a window appears prompting you to restart the system, click [Yes]. Once the OS has started, the CL-AP will start up automatically.

■ Verifying the connection after IP address changes

(1) Click Start and then sequentially choose “Programs”, “Fuji Film”, and “FCR”.

⇨ The CL-AP starts up in about one minute.

The RU initialization message appears on the CL monitor. The RU becomes available in about one minute.



00000195.EPS

(2) From the CL user window (Registration), set patient data and exposure menu, and then click Start Study.

⇨ Both the CL-AP window lamp and the RU panel’s cassette insertion lamp go on.

(3) Set the cassette in the RU's cassette setting unit and make sure that images are transferred to the CL.

◇ ***REFERENCE*** ◇

Be sure not to incorrectly enter an IP address for "NETWORK CONFIG" – "ALL OTHER NODES" – "ru0" settings, otherwise an image transfer error will be indicated.

(4) Click at the upper right corner of the window.

(5) Click

.

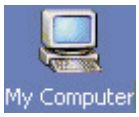
➪ A menu opens.

(6) Hold down the <Shift> key and click

.

➪ The CL-AP exits.

■ Changing the CL (IP Address/NET MASK) (from Default Setting to User Setting)

(1) Double-click 

on the desktop.

⇨ The “My Computer” window opens.

(2) Double-click

.

⇨ The “Control Panel” window opens.

(3) Double-click

.

⇨ The “Network and Dial-up connection” window opens.

(4) Double-click

.

⇨ The “Local Area Connection” window opens.

◇ *REFERENCE* ◇

On Windows 2000, the “Local Area Connection” icon may not appear on the display if your PC is not connected to other equipment (RU) with a network cable.

(5) Click

.

⇨ The “Local Area Connection Properties” window opens.

(6) Choose

and then click

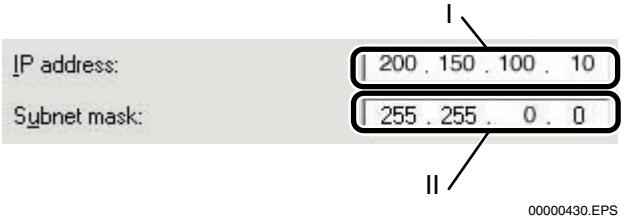
.

⇨ The “Internet Protocol (TCP/IP) Properties” window opens.

(7) Choose

.

(8) Change the IP address to the user setting that has been noted at "■ Checking the IP Addresses of the CL and RU".



I. Enter the IP address of the CL that has been set by the user (example: 200.150.100.10).

II. Enter a subnet mask.

(9) Click OK.

➪ You are returned to the "Local Area Connection Properties" window.

(10) Click OK.

➪ The system returns to the desktop screen.

◇ ***REFERENCE*** ◇

When a window appears prompting you to restart the system, click [Yes].
Once the OS has started, the CL-AP will start up automatically.

■ Checking Connection After Changing the IP Address

(1) Check the connection.

☞ "[4] Change the CL (IP address/NET MASK), ■ Checking Connection After Changing the IP Address"

[5] Install the application software and configuration data

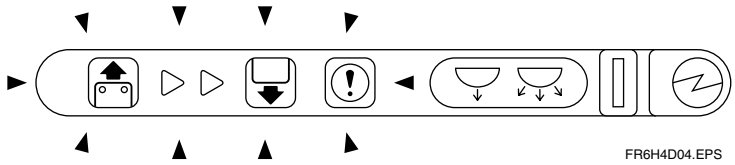
◆ ***NOTES*** ◆

- *If the software versions of the flash ROM on the CPU12A board and the HDD on the CL are identical, the application software install operation at step (2) is not performed.*
- *If the contents of the flash ROM on the CPU12A board and the HDD on the CL are identical, the configuration data install operation at steps (2) and (3) is not performed.*

(1) Power OFF the RU and then back ON.

◇ ***REFERENCE*** ◇

When the RU is powered OFF and then back ON, the installation of the application software and configuration data from the CL is initiated.
At this time, all the indicators on the panel of the RU are illuminated, and an audible alarm is generated.



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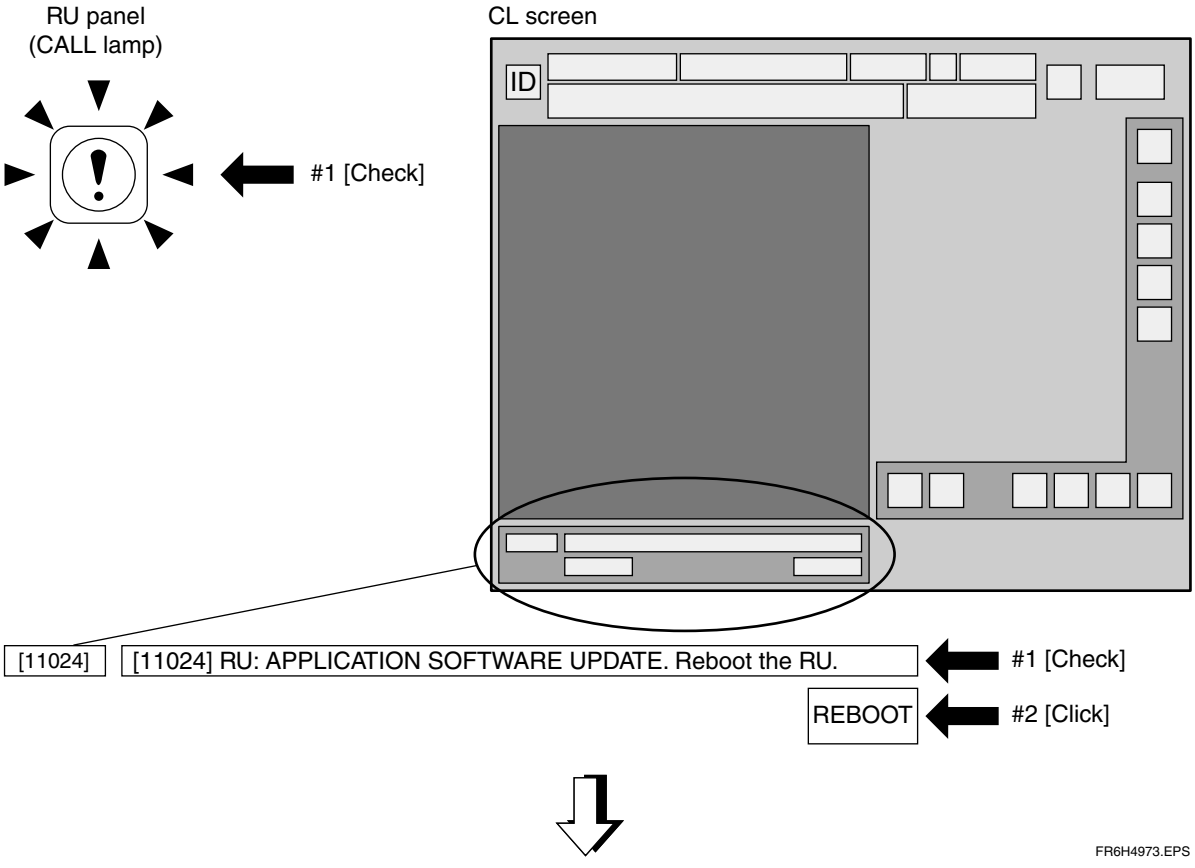
(2) Verify that the RU call lamp is illuminated, with [11024] displayed on the CL screen, and restart the RU from the CL screen.

When it is restarted, the RU is power OFF and then back ON with all indicators on the panel illuminated, and an audible alarm (three short beeps) is generated.



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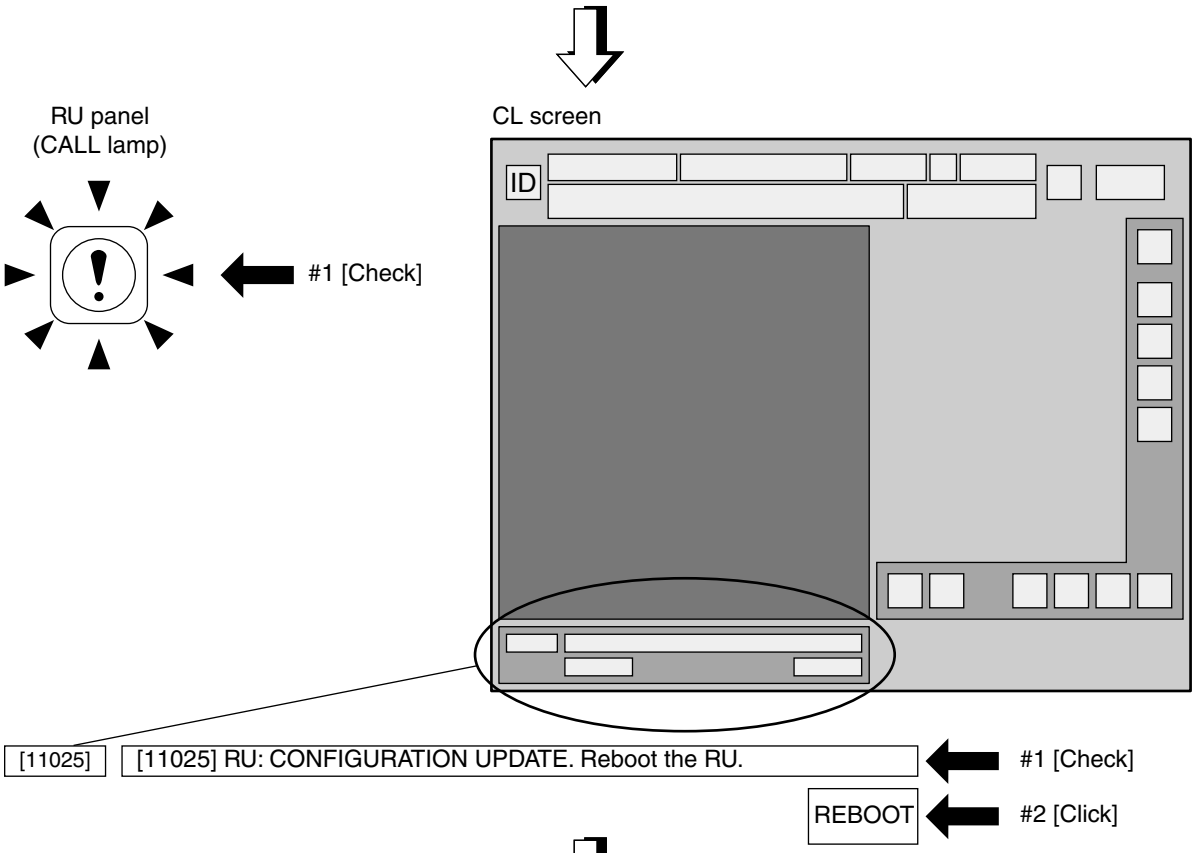
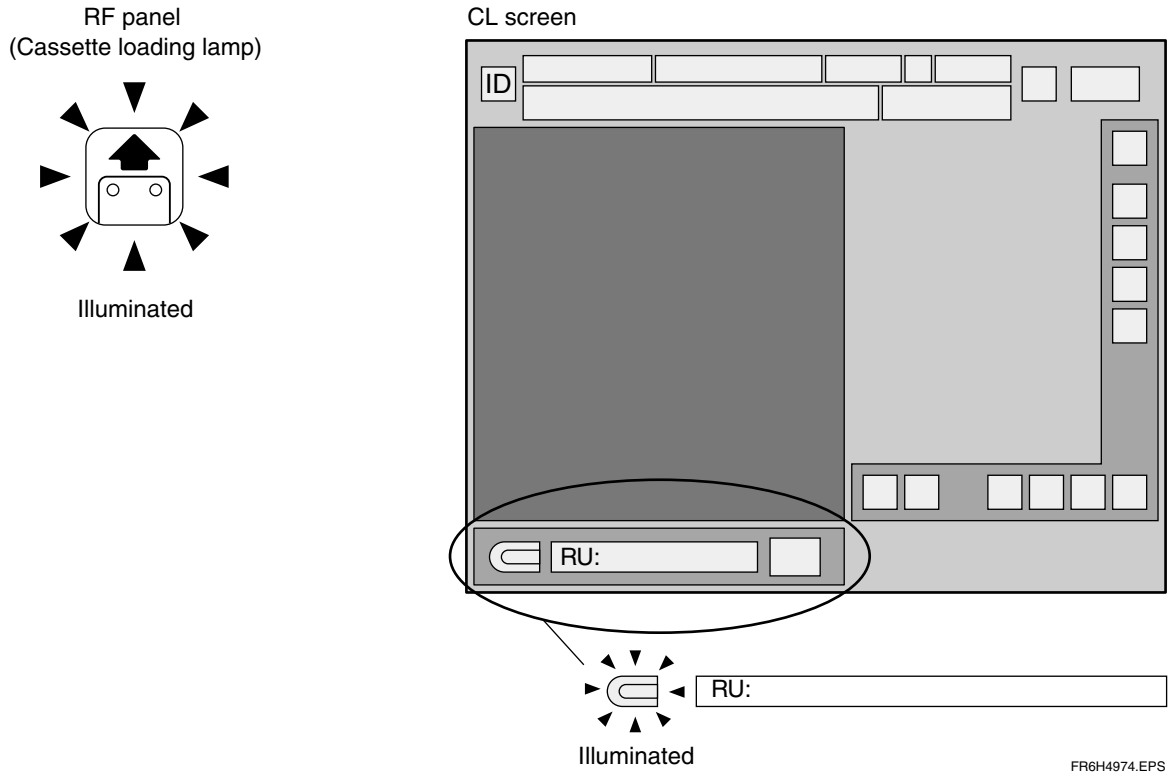
(3) Verify that the RU call lamp is illuminated, with [11025] displayed on the CL screen, and restart the RU from the CL screen.

When it is restarted, all the indicators on the panel are illuminated, and an audible alarm is generated.



Install completed



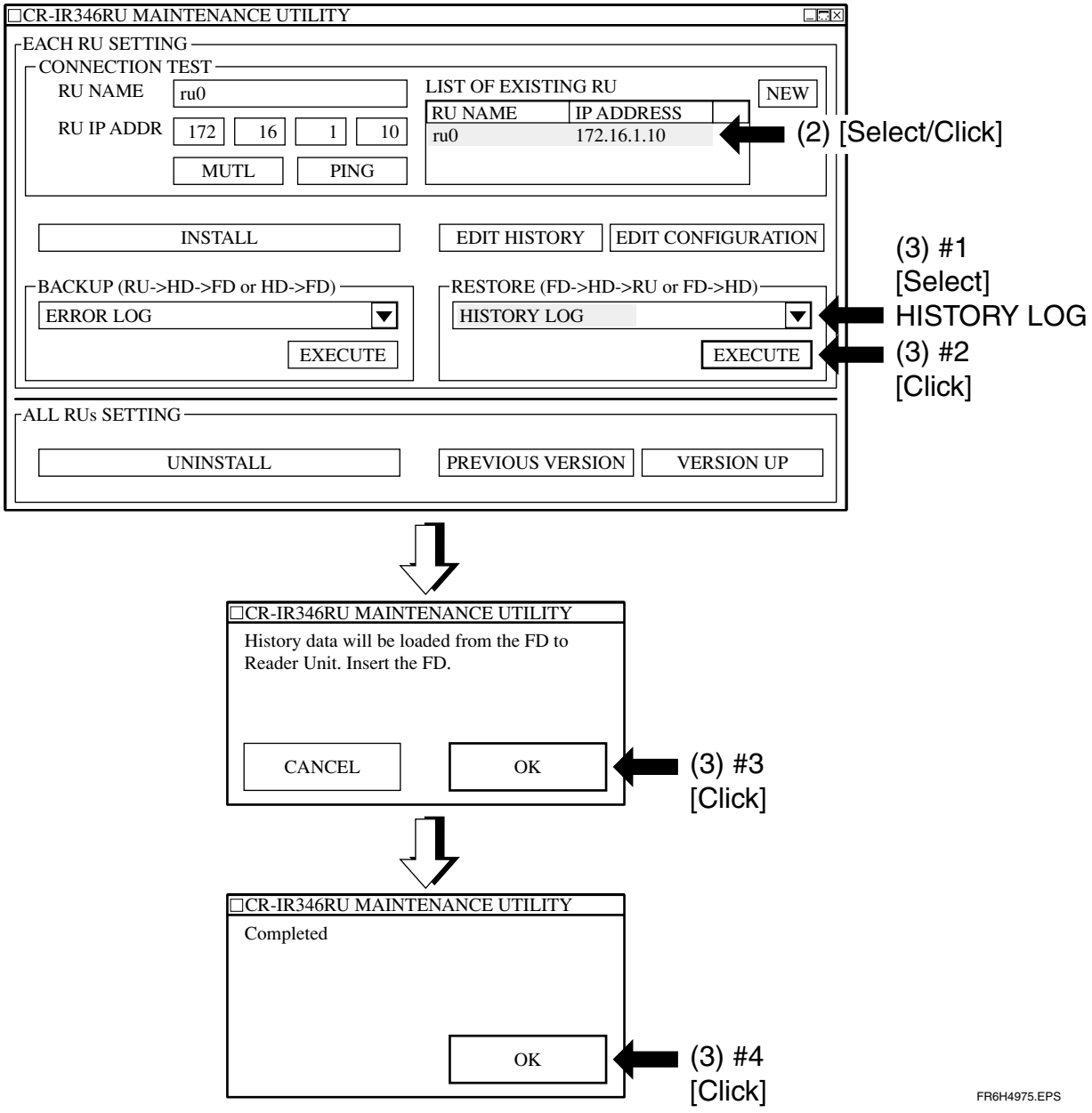
[6] Restore HISTORY LOG

(1) Put into the FD drive the floppy disk containing HISTORY LOG that has backed up before replacing the CPU12A board.

(2) Open the CR-IR346RU MAINTENANCE UTILITY window and select a relevant RU from the “LIST OF EXISTING RU”.

(3) Restore HISTORY LOG.

MAINTENANCE UTILITY window

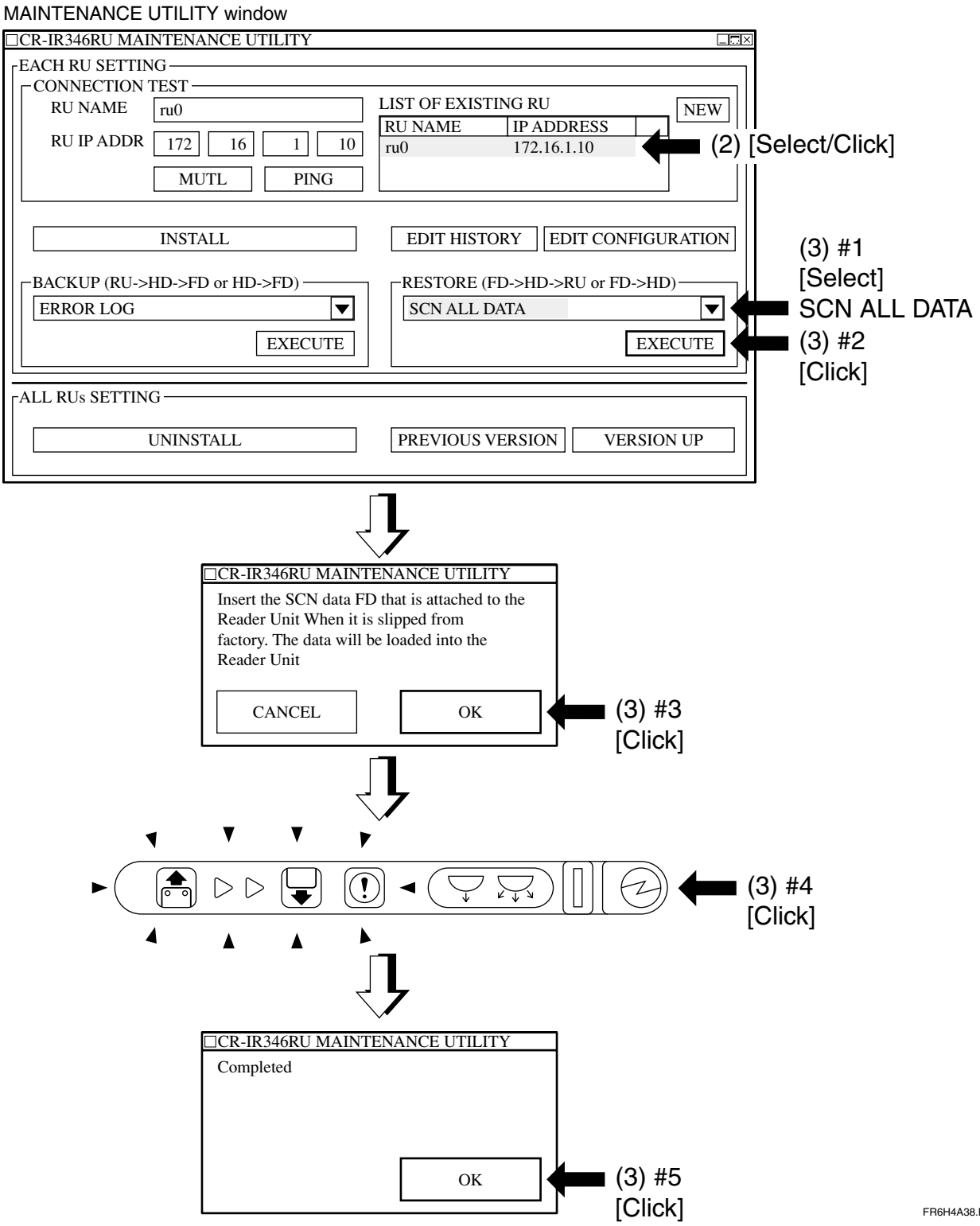


[7] Restore SCN ALL DATA

(1) Put the machine-specific data floppy disk into the FD drive.

(2) Open the CR-IR346RU MAINTENANCE UTILITY window and select a relevant RU from the “LIST OF EXISTING RU”.

(3) Restore SCN ALL DATA.



[8] Check and change the RU (IP address/NET MASK)

◆ *INSTRUCTION* ◆

Check the RU (IP address/NET MASK), and if its setting differs from the user setup value, change it as appropriate.

■ Changing the RU Configuration File (from Default Setting to User Setting)

◇ *REFERENCE* ◇

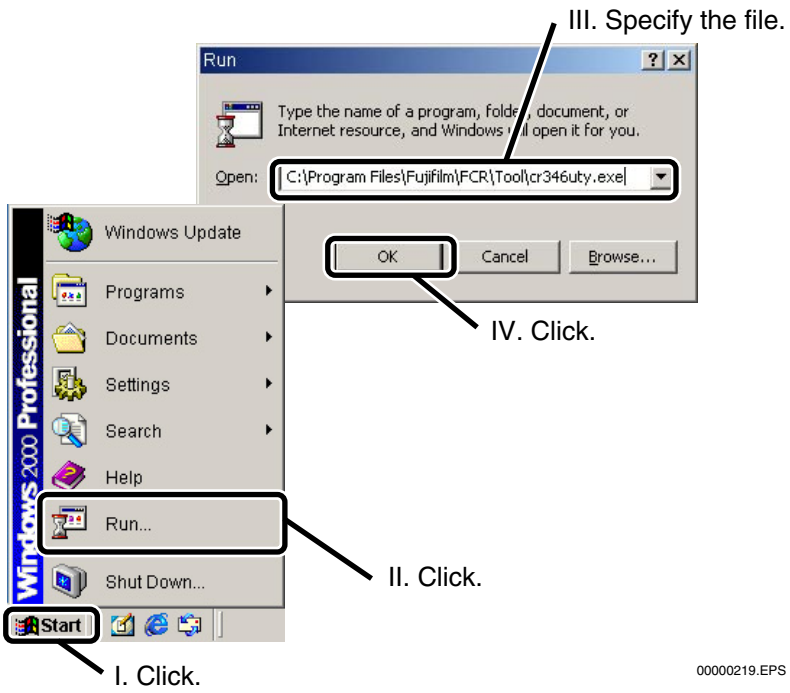
Here, the IP address and NET MASK of the RU that have been set by the user are set on the RU.

(1) Turn ON the RU power.

(2) Start the RU M-Utility as directed below:

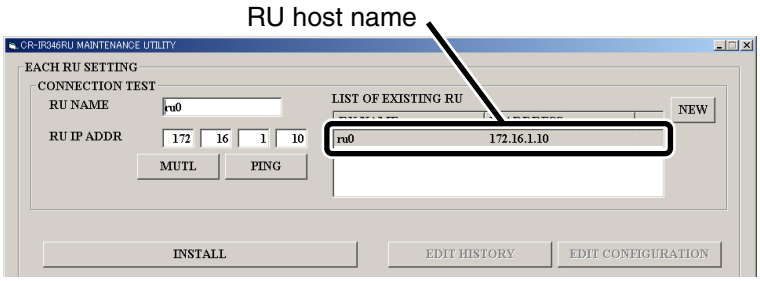
◆ *NOTE* ◆

AP such as the CL-AP, Service Utility etc. or the Explorer should have not been started. If already started, shut it down.



➪ The RU M-Utility main menu opens.

(3) From the “LIST OF EXISTING RU” area, click the host name of the RU whose configuration file is to be set.



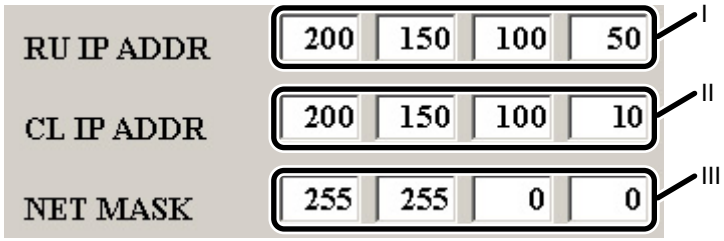
00000434.EPS

➪ The text color of the “EDIT CONFIGURATION” button changes from gray to black.

(4) Click EDIT CONFIGURATION.

➪ The “READER UNIT SETTING” window opens.

(5) Change the IP address and NET MASK to the user settings that have been noted at “[1] Check the IP address/NET MASK of the CL and RU”.



00000429.EPS

I. Enter a new RU IP address (e.g., 200.150.100.50).

II. Enter a new CL IP address (e.g., 200.150.100.10).

III. Enter a net mask.

(6) Click SET.

➪ The system saves the settings and returns to the main menu.

(7) Click the ✕ mark at the upper right corner of the window.

➪ The system returns to the desktop screen.

(8) From the Start menu, sequentially choose “Programs”, “Fuji Film”, and then “FCR”.

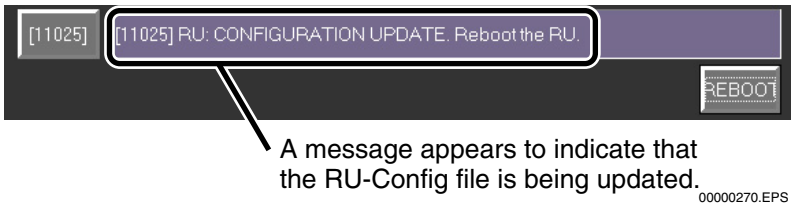
CAUTION

Never power OFF the RU when the panel indicators of the RU are illuminated, because the CPU board of the RU may be damaged.

➪ The CL-AP starts up in about one minute.

The RU-Config file in the RU FLASH ROM will be updated. (The RU LED lights and a beep sounds.)

➪ The CL monitor displays a message indicating that the RU-Config file is being updated.


[11025]
[11025] RU: CONFIGURATION UPDATE. Reboot the RU.
REBOOT
A message appears to indicate that the RU-Config file is being updated.
00000270.EPS

(9) Click REBOOT on the CL monitor.

➪ The error window opens in a few seconds.

Console Warning [Input]
[31116]
ommunication line for monitoring the connection status with the Image Reader has
*Being
ried to connect.
“31117” or “31118” can eventually be displayed.
00000601.EPS

(10) Click

.

(11) Click

.

➪ A menu opens.

(12) Hold down the <Shift> key and click

.

➪ The system returns to the desktop screen.

■ Changing the Settings in Service Utility of CL (from Default Setting to User Setting)

◆ *NOTE* ◆

For the machine where the IP address of the RU has been set at its default value, it is unnecessary to perform the procedures described here.

◇ *REFERENCE* ◇

Here, the IP address and NET MASK of the RU that have been set by the user are set on the CL.

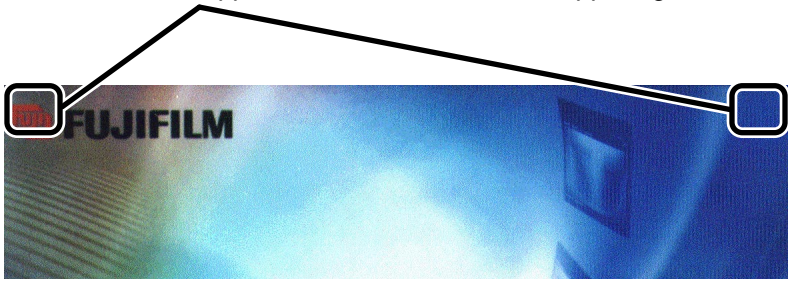
(1) Click

and then sequentially choose “Programs”, “Fuji Film”, and “FCR”.

➪ The CL-AP starts up.

(2) Within a period of 5 seconds after the initial window opens, sequentially click the upper left and upper right corners of the window.

Click the upper left corner and then the upper right corner.



00000118.EPS

➪ The Service Utility starts. The “IIP Service Utility” window opens.

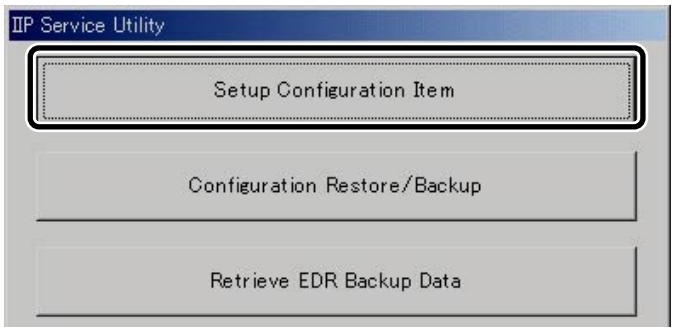
◇ *REFERENCE* ◇

If you cannot complete step 2 from the initial window within a 5-second period and allow the AP to start up, perform the following steps to start the Service Utility:

1. *To exit the AP, hold down the <Shift> key and choose “Shut Down” on the*

menu.
2. *From the “Start” menu, sequentially choose “Programs”, “Fuji Film”, and “FCR”.*
3. *When the initial window opens, sequentially click its upper left and upper right corners within a period of 5 seconds.*

(3) Click [Setup Configuration Item].



00000159.EPS

➪ The “Setup Configuration Item” window opens.

(4) Click the ⊞ sign within ⊞ NETWORK CONFIG.

(5) Click the ⊞ sign within ⊞ ALL OTHER NODES and then select ⊞ ru0.

➪ The “HostName” window opens in the right-hand area of the window.

(6) Enter in the

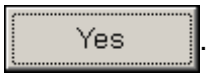
field the IP address of the RU that has been set by the user (example: 200.150.100.50).

(7) Click

.

(8) From the “Config (F)” menu, choose “Save”.

➪ A window opens, prompting you to confirm the setup data to be saved.

(9) Click 

.

➪ The system saves the setup data.

(10) From the “Config (F)” menu, choose “Close”.

➪ The system returns to the “IIP Service Utility” window.

(11) Click [Exit Service Utility].

➪ The system returns to the desktop screen.

■ Checking Connection After Changing the IP Address

(1) Check the connection.

☞ “[4] Change the CL (IP address/NET MASK), ■ Checking Connection After Changing the IP Address”

[9] Image Checks

(1) Output the image exposed at 1 mR.

☞ “RU Instruction Manual/2. Operating Procedures”

◆ ***CHECKS*** ◆

• There should be no offensive noise or odor.
• There should be no IP jam.
• The IP should be free from any scratch or damage after reading.
If anything abnormal is found, see [Troubleshooting Volume].

(2) Check the output film and image.

◆ ***CHECK*** ◆

There should be no unusual nonuniformity.
If anything abnormal is found, see [Troubleshooting Volume].

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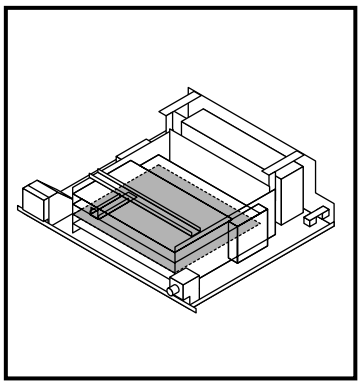
11.3 SCN12A Board



FR6H4A52.EPS

CAUTION

When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.

■ Removal Procedures

(1) Remove the covers.

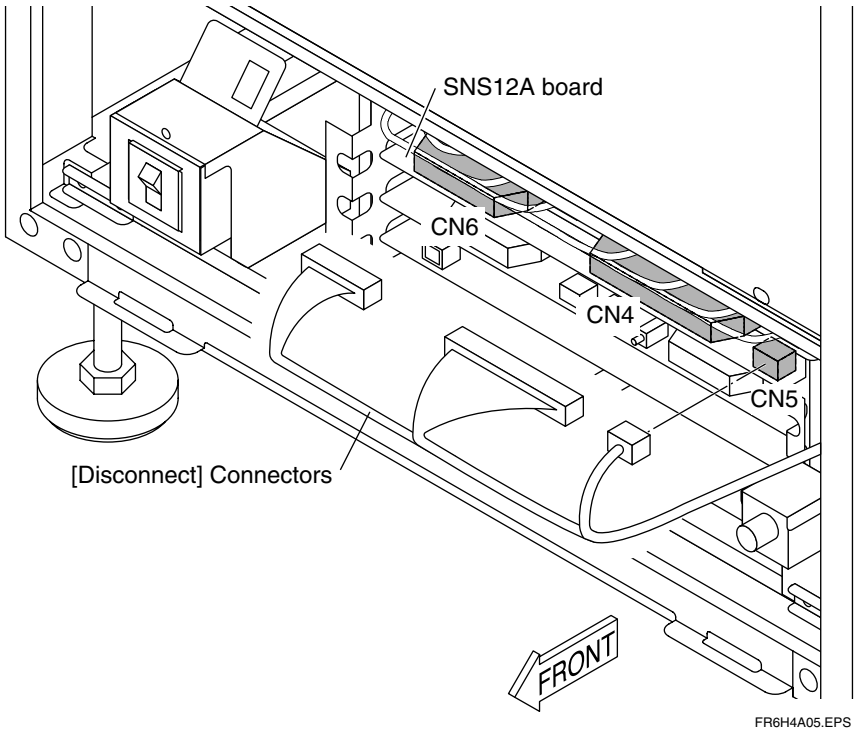
- Front cover
- Lower light protect plate

☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the support plate (board retainer).

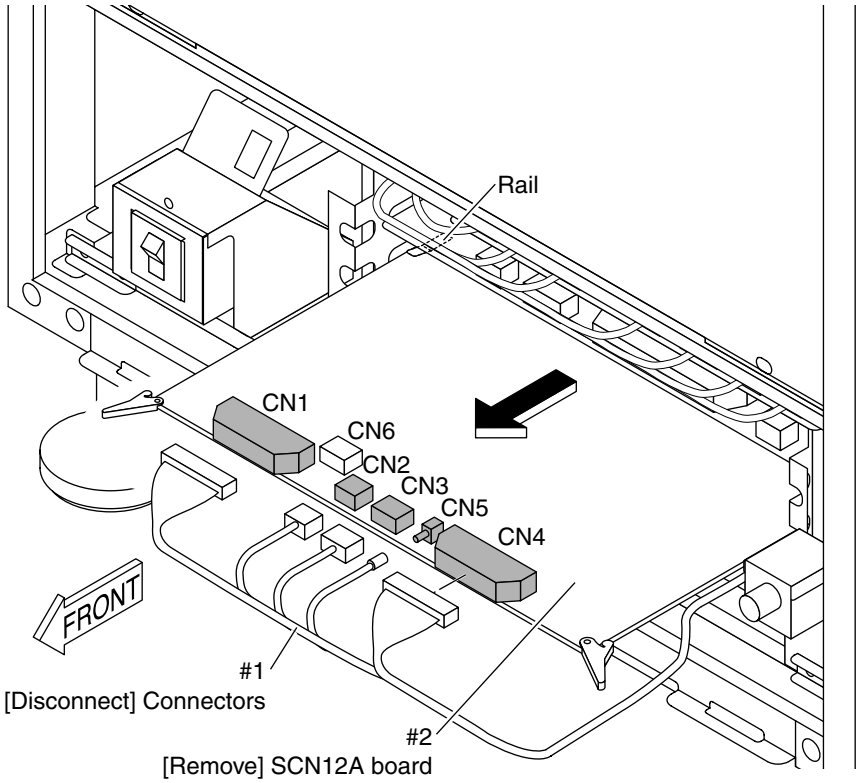
☞ "11.1 Controller"

(3) Disconnect the SNS12A board connectors.



FR6H4A05.EPS

(4) Remove the SCN12A board.



FR6H4A07.EPS

■ Reinstallation Procedures

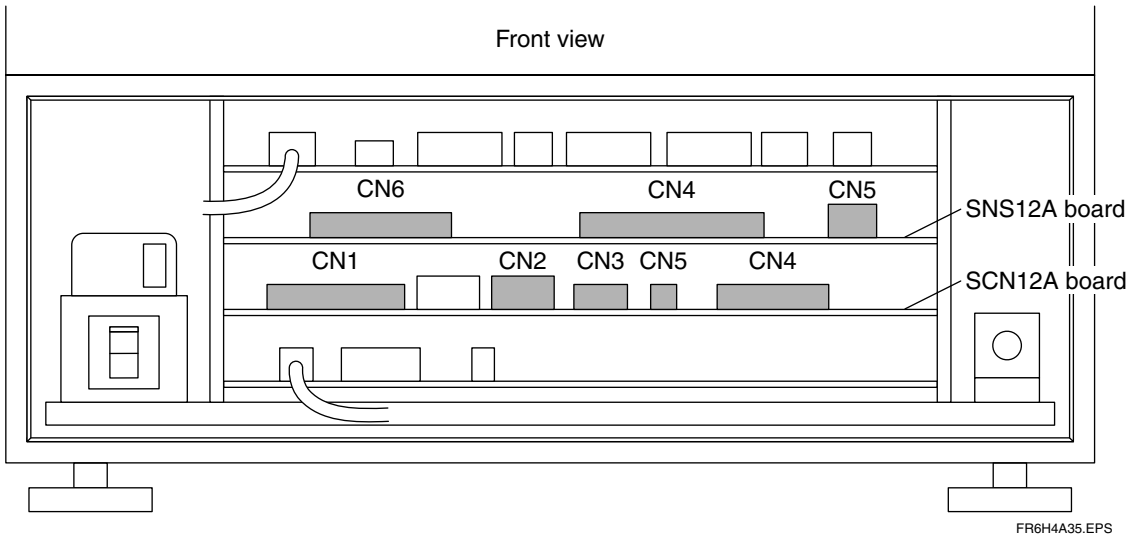
◆ ***NOTE*** ◆

When installing the SCN12A board, mount it along the rail.

For reinstallation, reverse the removal steps.

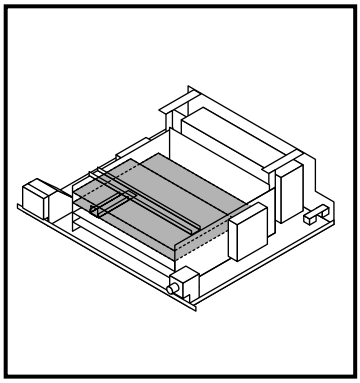
■ Check/Adjustment Procedure

• Make sure that the connectors are connected to their correct locations.



FR6H4A35.EPS

11.4 DRV12A-1 Board



FR6H4A53.EPS

CAUTION

When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.

◇ ***REFERENCE*** ◇

The SNS12A board and DRV12A board are screwed together, and installed as the DRV12A-1 board to the machine.

■ Removal Procedure

(1) Remove the covers.

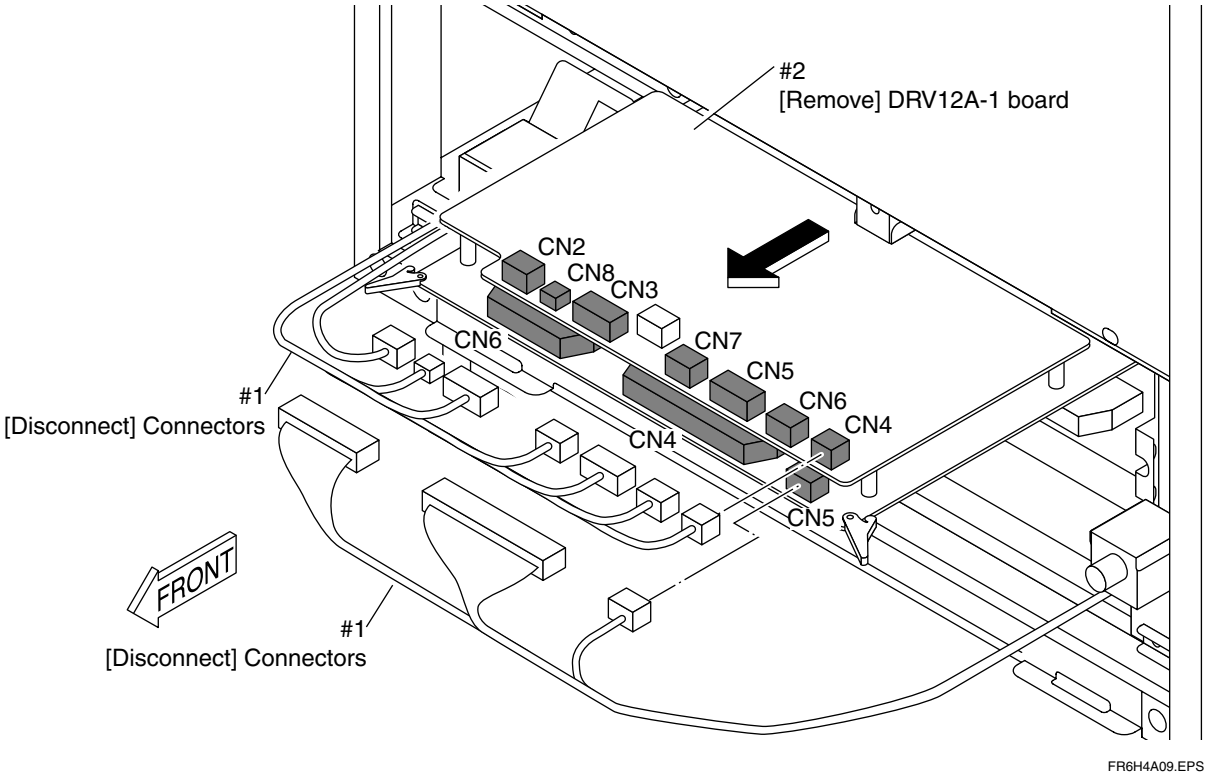
- Front cover
- Lower light protect plate

☞ "3.1 Removing and Reinstalling the Covers"

(2) Remove the support plate (board retainer).

☞ "11.1 Controller"

(3) Remove the DRV12A-1 board.



FR6H4A09.EPS

■ Reinstallation Procedures

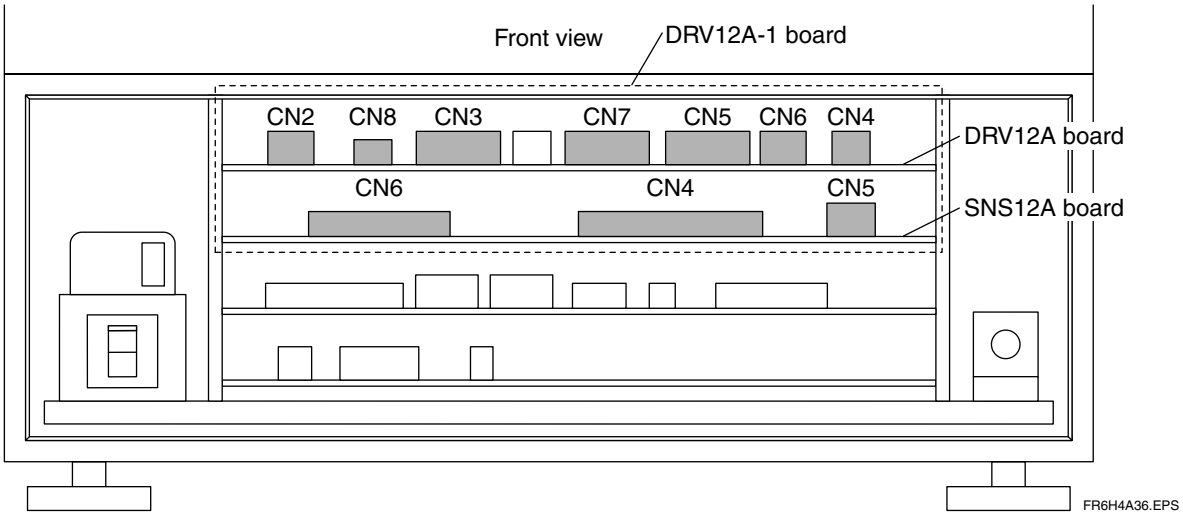
◆ ***NOTE*** ◆

When installing the DRV12A-1 board, mount it along the rail.

For reinstallation, reverse the removal steps.

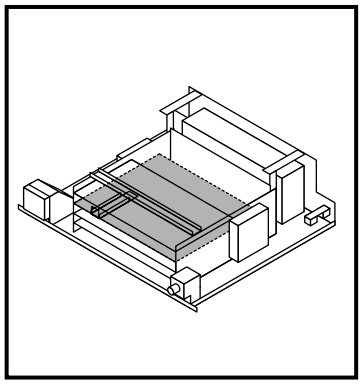
■ Check/Adjustment Procedures

• Make sure that the connectors are connected to their correct locations.



FR6H4A36.EPS

11.5 SNS12A Board



FR6H4A54.EPS

CAUTION

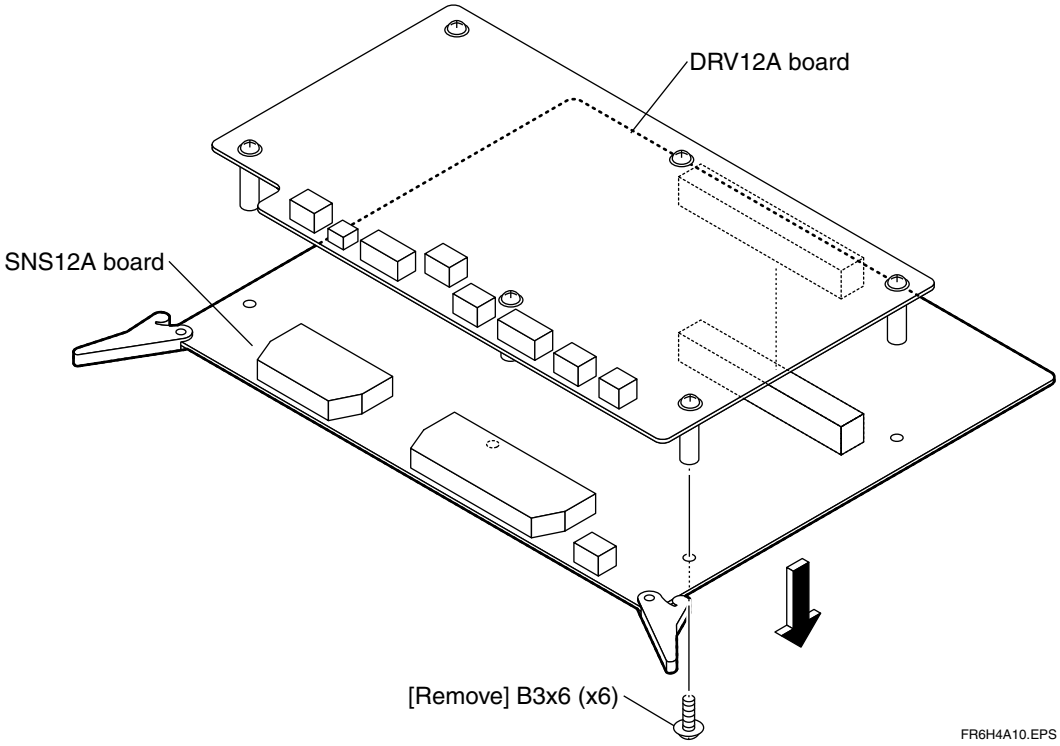
When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.

■ Removal Procedures

(1) Remove the DRV12A-1 board.

☞ "11.4 DRV12A-1 Board"

(2) Remove the SNS12A board.

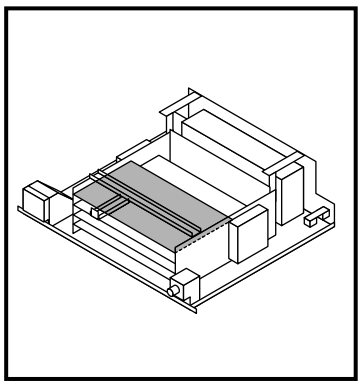


FR6H4A10.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

11.6 DRV12A Board



FR6H4A55.EPS

CAUTION

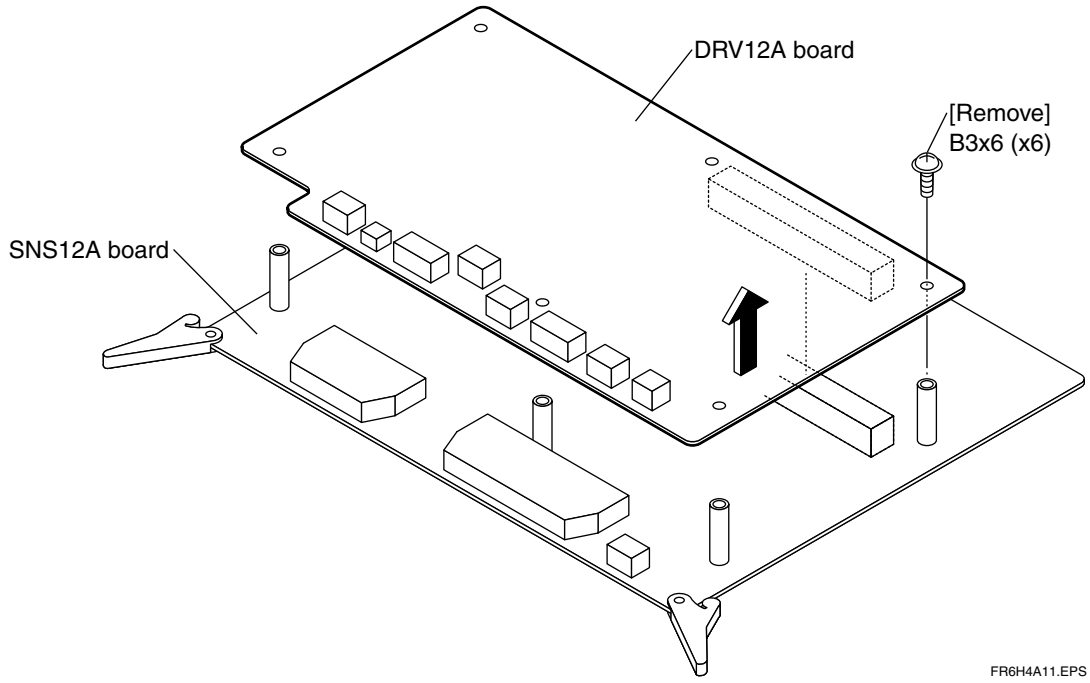
When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.

■ Removal Procedures

(1) Remove the DRV12A-1 board.

☞ "11.4 DRV12A-1 Board"

(2) Remove the DRV12A board.

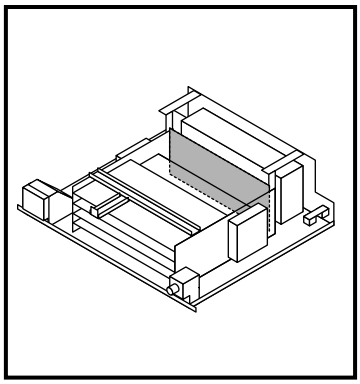


FR6H4A11.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

11.7 MTH12A Board



FR6H4A57.EPS

CAUTION

When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.

■ Removal Procedures

(1) Remove the controller.

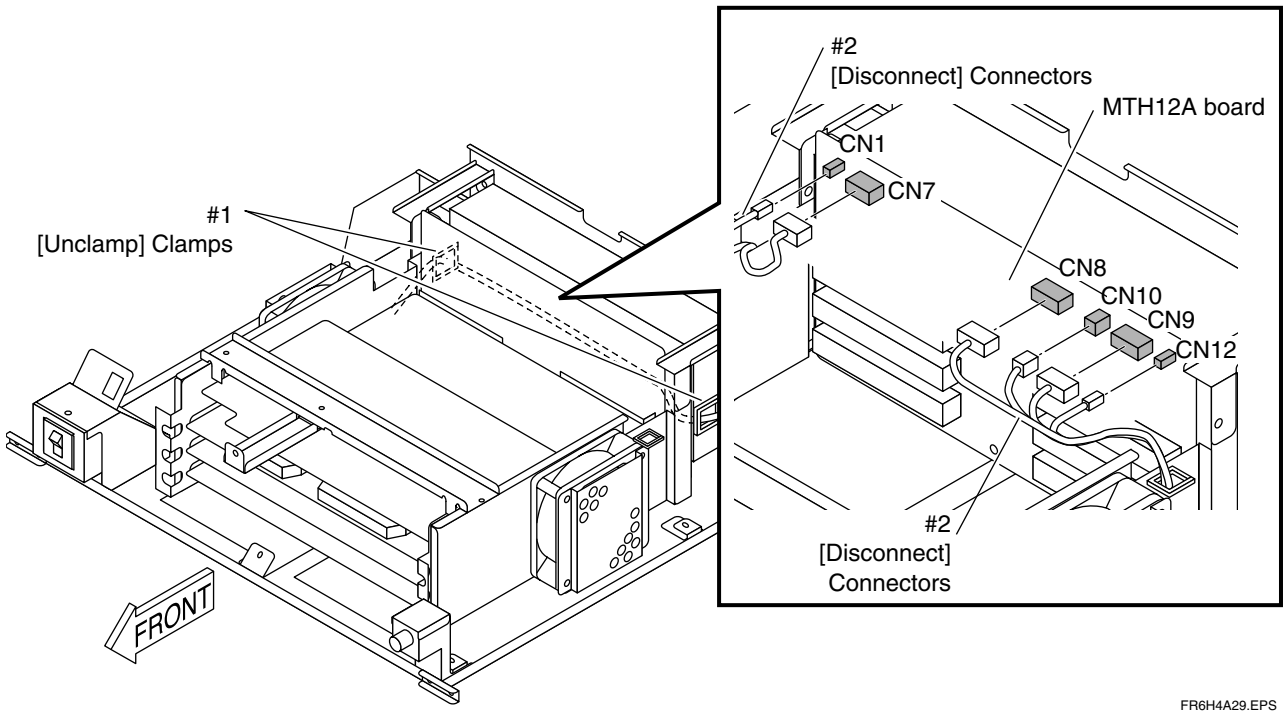
☞ "11.1 Controller"

(2) Remove the boards.

- CPU12A board
- SCN12A board
- DRV12A-1 board

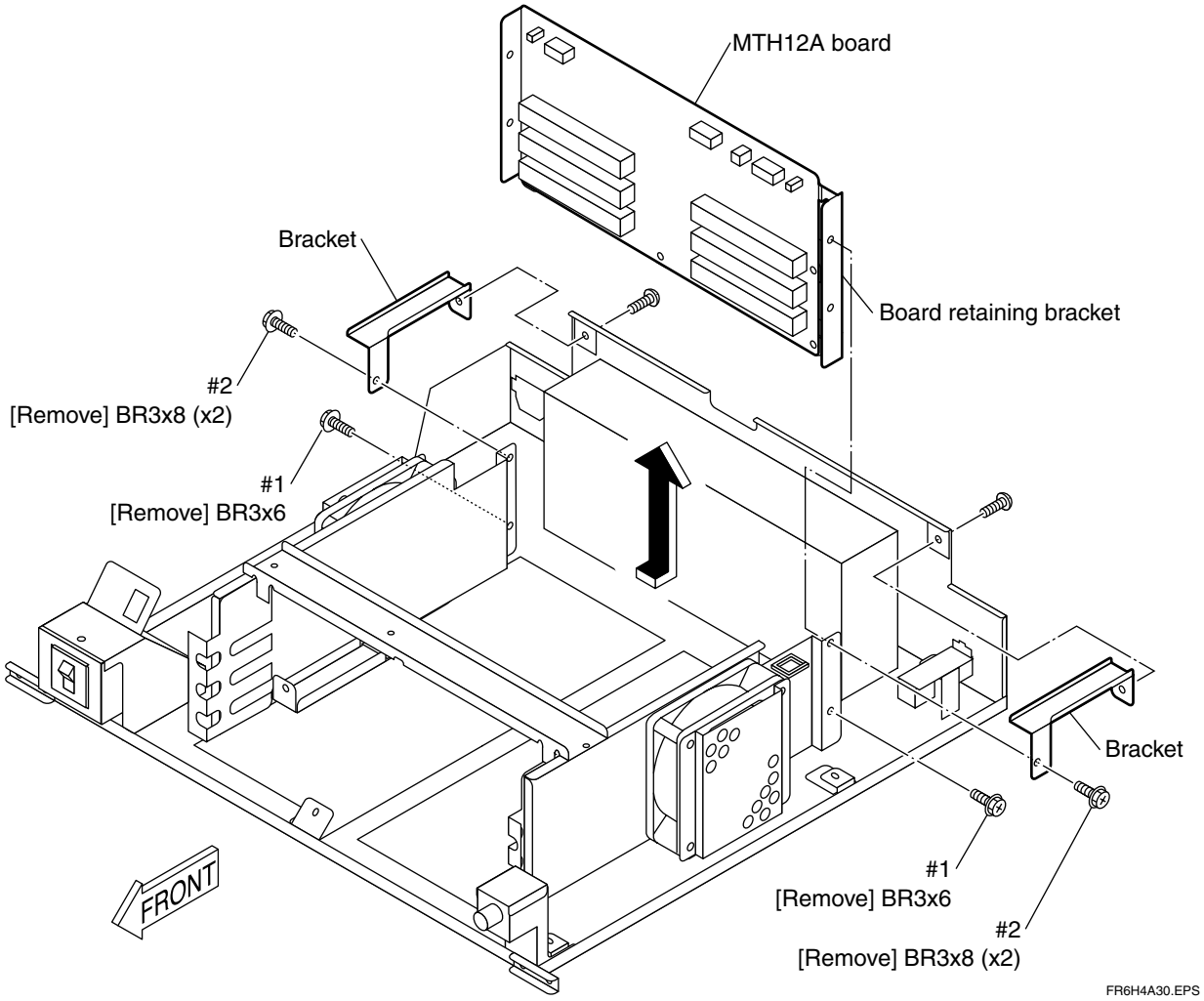
☞ "11.2 CPU12A Board", "11.3 SCN12A Board", "11.4 DRV12A-1 Board"

(3) Disconnect the connectors.

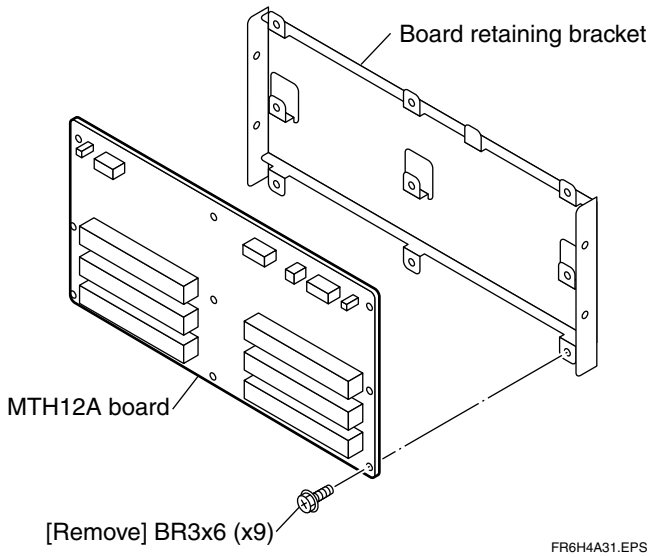


FR6H4A29.EPS

(4) Remove the MTH12A board together with the board retaining bracket.



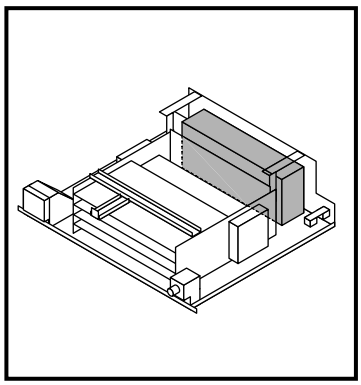
(5) Remove the MTH12A board.



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

11.8 Power Supply



FR6H4A58.EPS

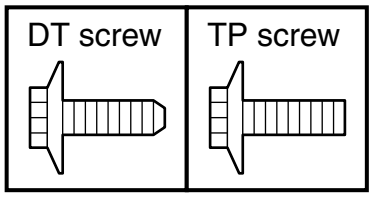
■ Removal Procedures

(1) Remove the controller.

☞ "11.1 Controller"

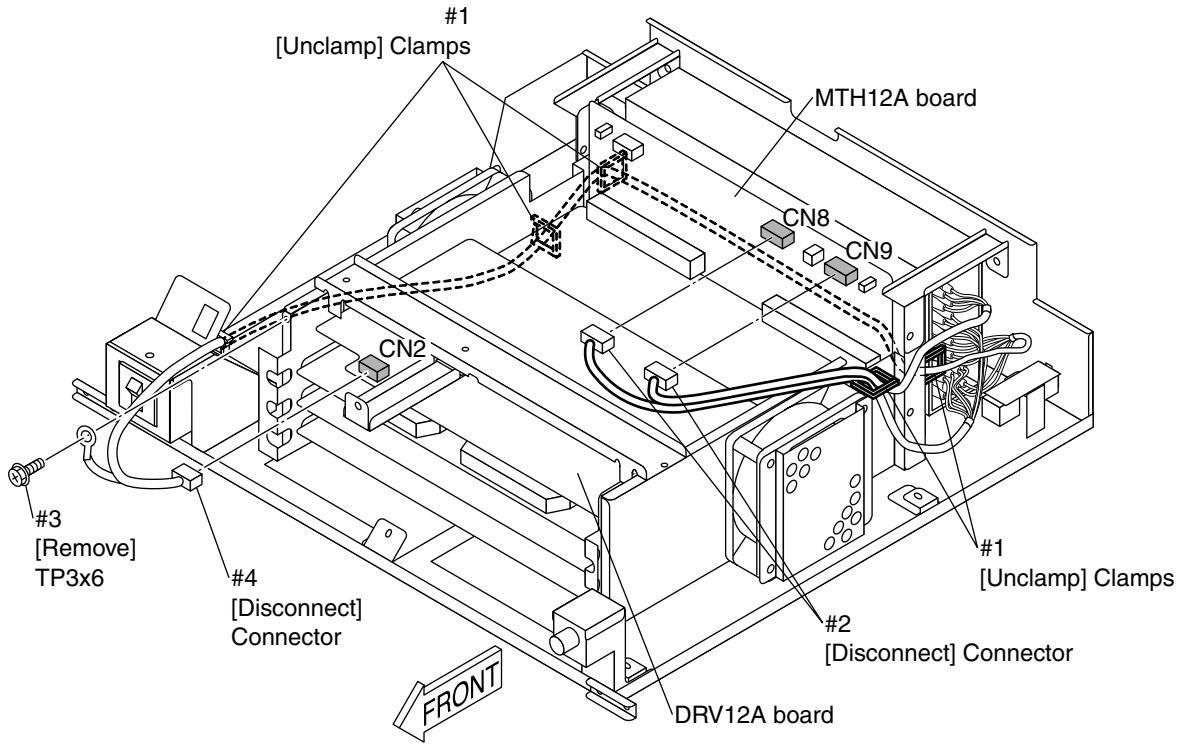
◆ ***NOTE*** ◆

The TP screw used to secure the ground wire is similar in shape to a DT screw. When attaching the screw, check its shape to avoid confusing it with a wrong one.



FR6H4105.EPS

(2) Disconnect the connectors.



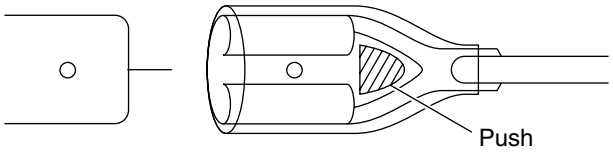
FR6H4A15.EPS

CAUTION

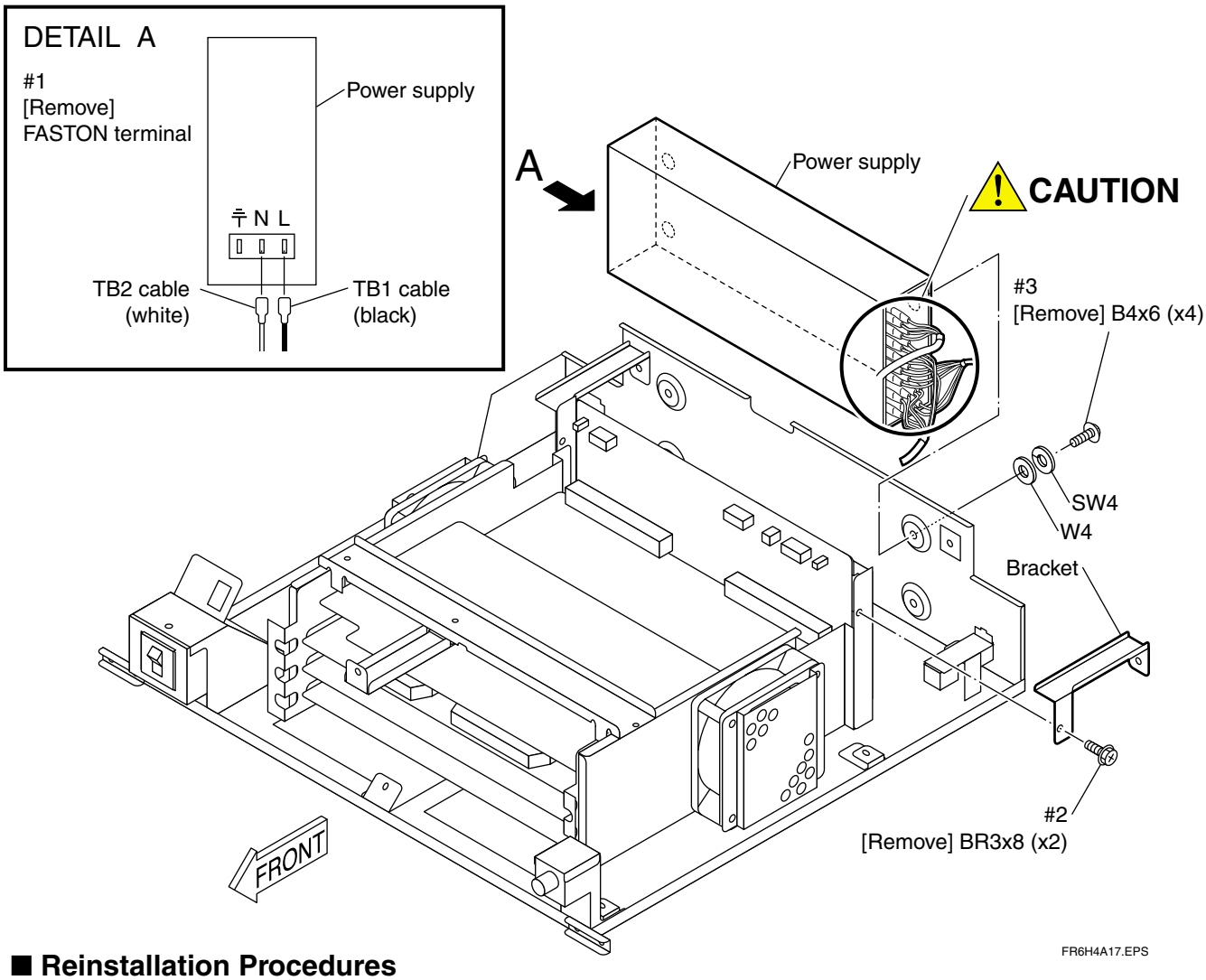
The cable connected to the power supply (marked by CAUTION in the illustration below) should not be detached.

◆ NOTE ◆

To remove the FASTON terminal, push the shaded portion of the terminal illustrated below to detach it.



(3) Remove the power supply.



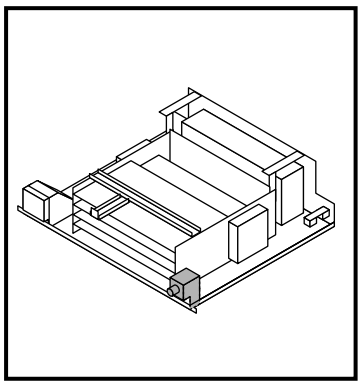
■ Reinstallation Procedures

◆ INSTRUCTION ◆

Connect the FASTON terminal to its correct location.

For reinstallation, reverse the removal steps.

11.9 Reset Switch



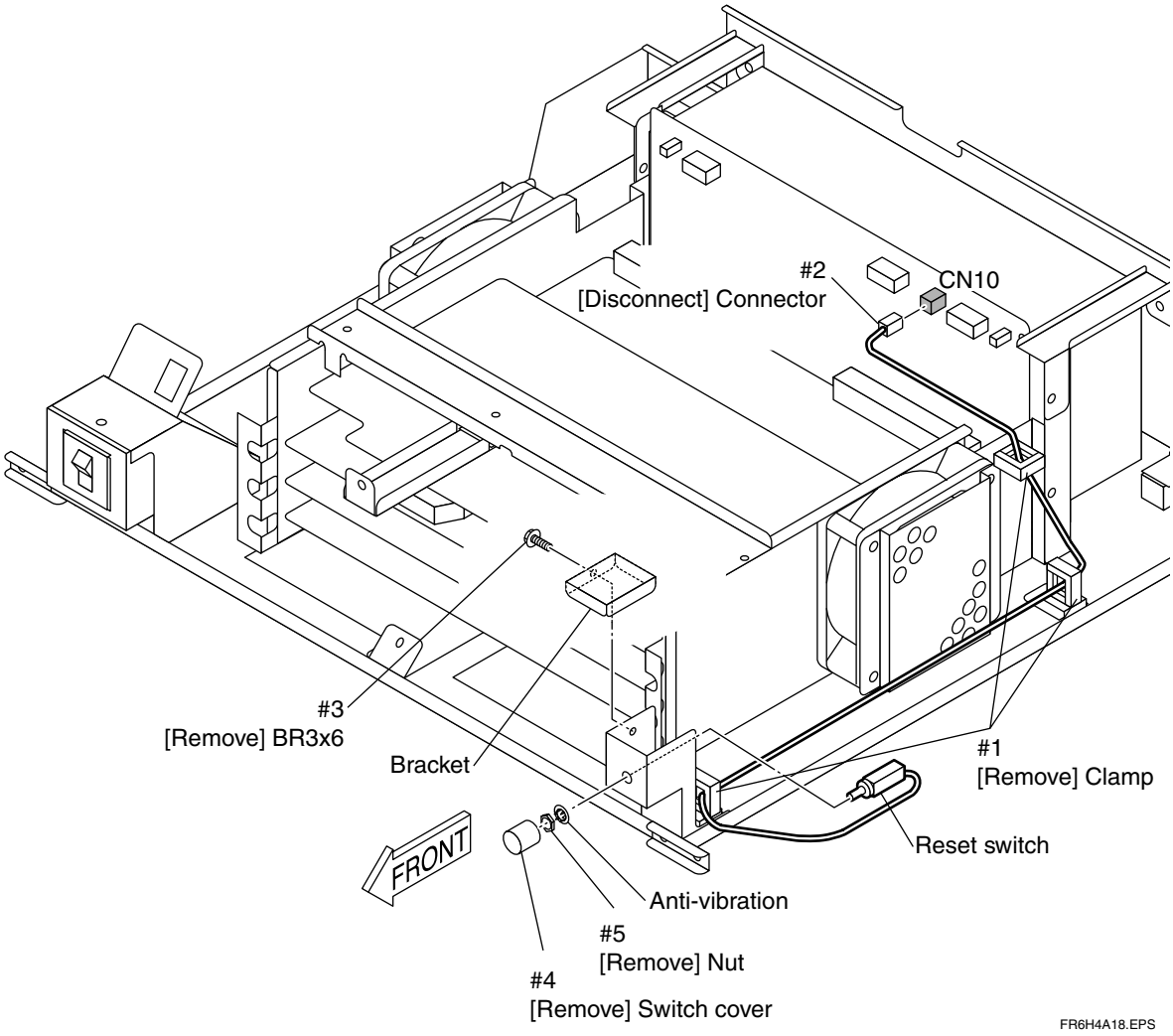
FR6H4A59.EPS

■ Removal Procedures

(1) Remove the controller.

☞ "11.1 Controller"

(2) Remove the reset switch.

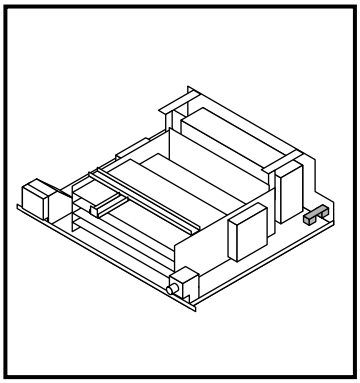


FR6H4A18.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

11.10 CNN12A Board



FR6H4A60.EPS

CAUTION

When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.

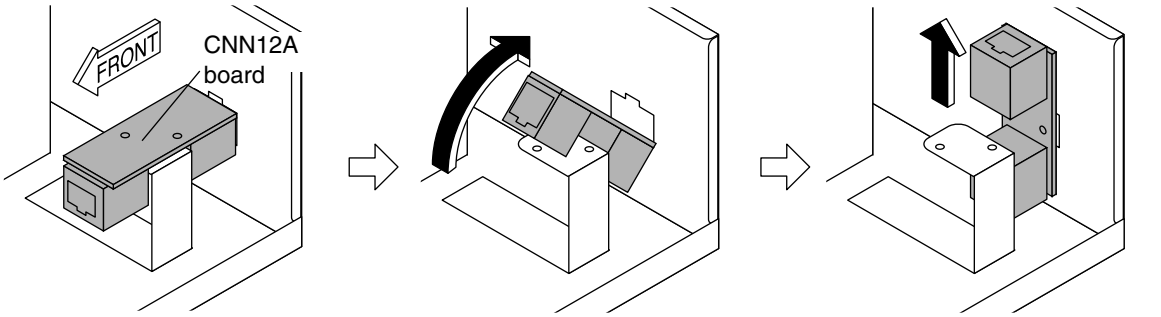
■ Removal Procedures

(1) Remove the controller.

☞ "11.1 Controller"

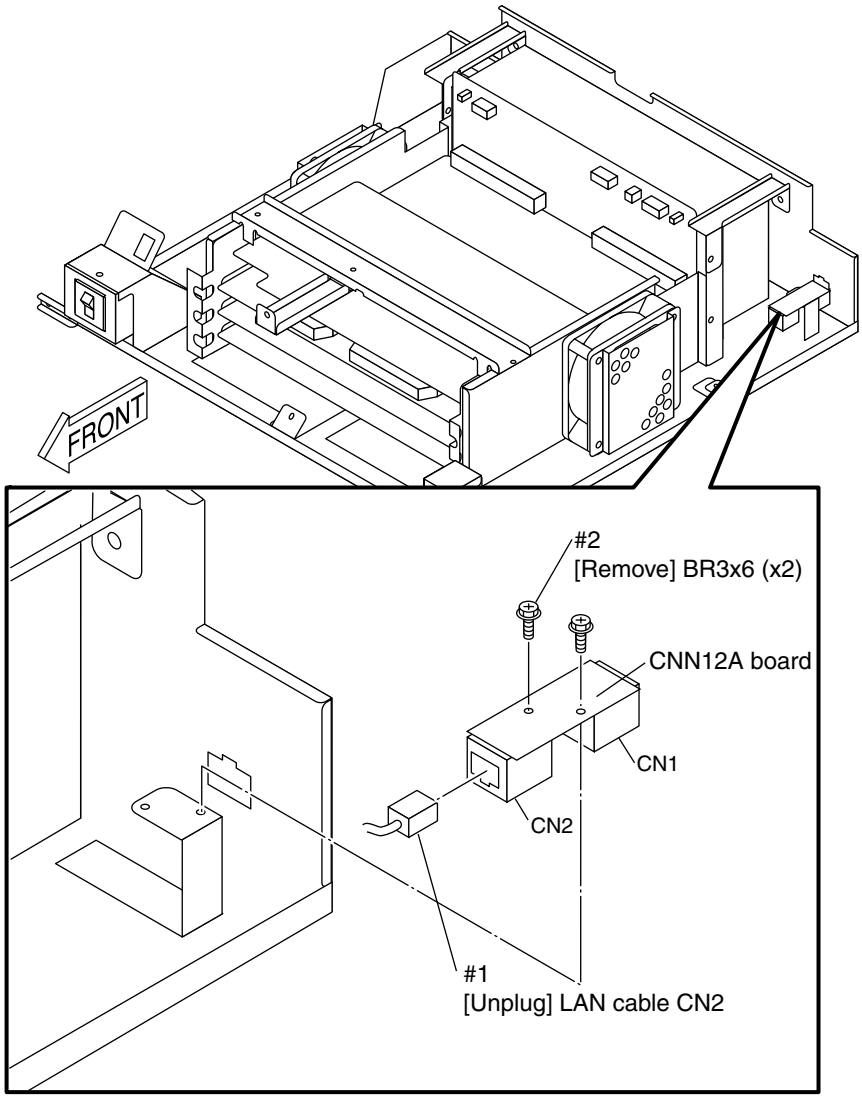
◆ ***NOTE*** ◆

To remove the CNN12A board, take the following steps in the illustration below.



FR6H4A19.EPS

(2) Remove the CNN12A board.

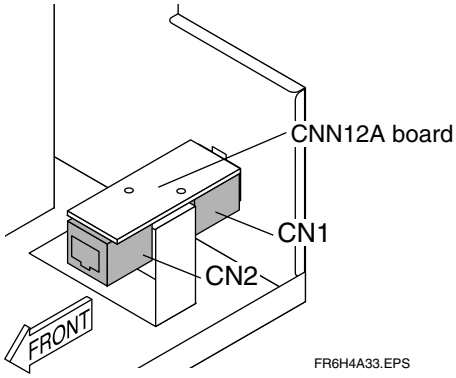


FR6H4A20.EPS

■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

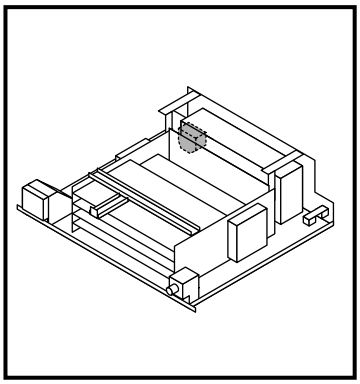
The CNN12A board should be installed in the orientation as illustrated below.



FR6H4A33.EPS

For reinstallation, reverse the removal steps.

11.11 Power Supply Socket



FR6H4A61.EPS

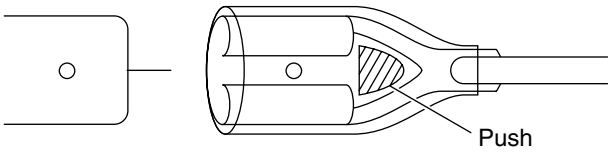
■ Removal Procedures

(1) Remove the controller.

☞ "11.1 Controller"

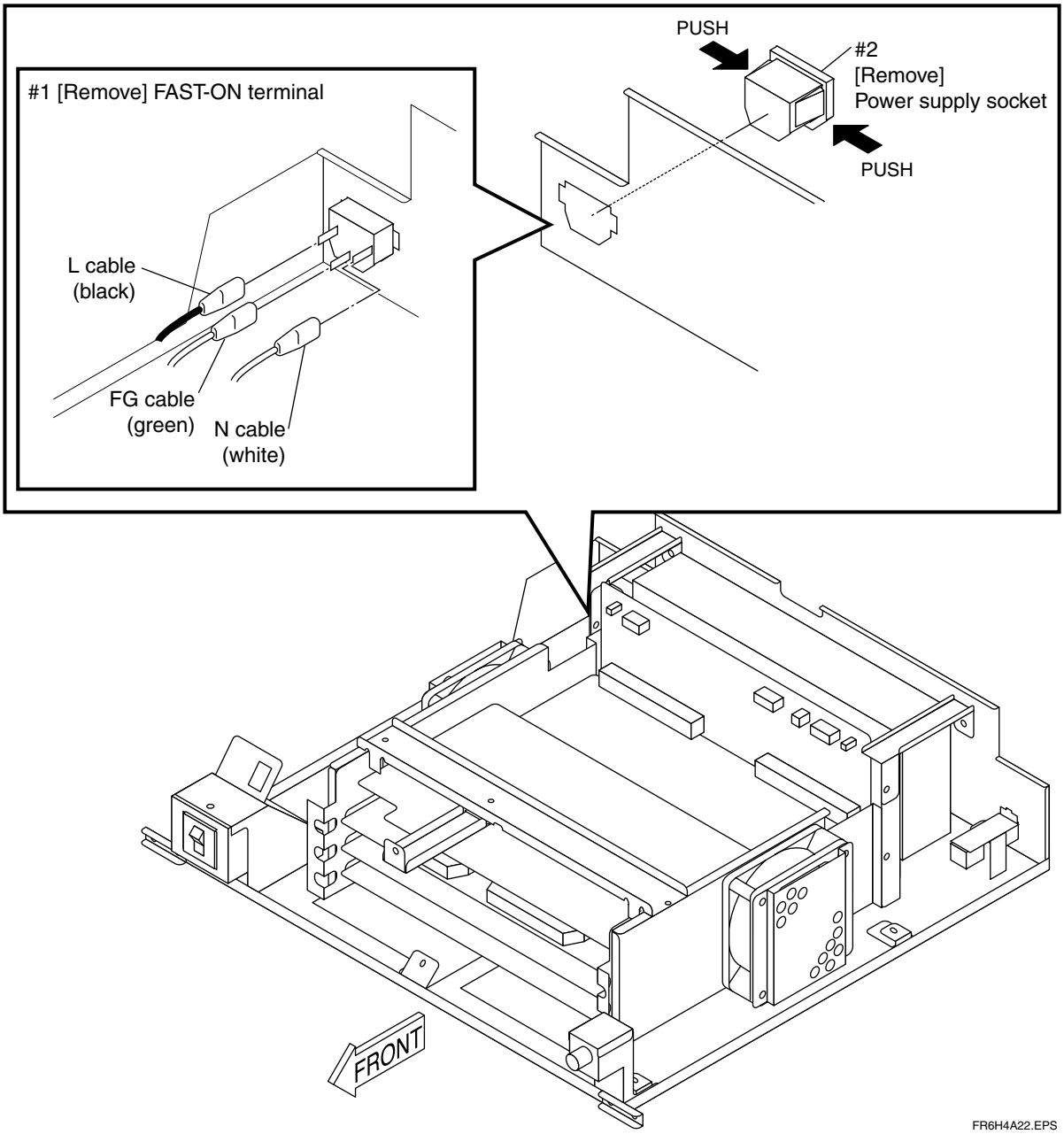
◆ ***NOTE*** ◆

To remove the FASTON terminal, push the shaded portion of the terminal illustrated below to detach it.



FR6H0001.EPS

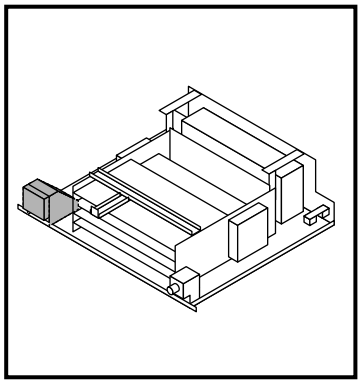
(2) Remove the power supply socket.



■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

11.12 Breaker



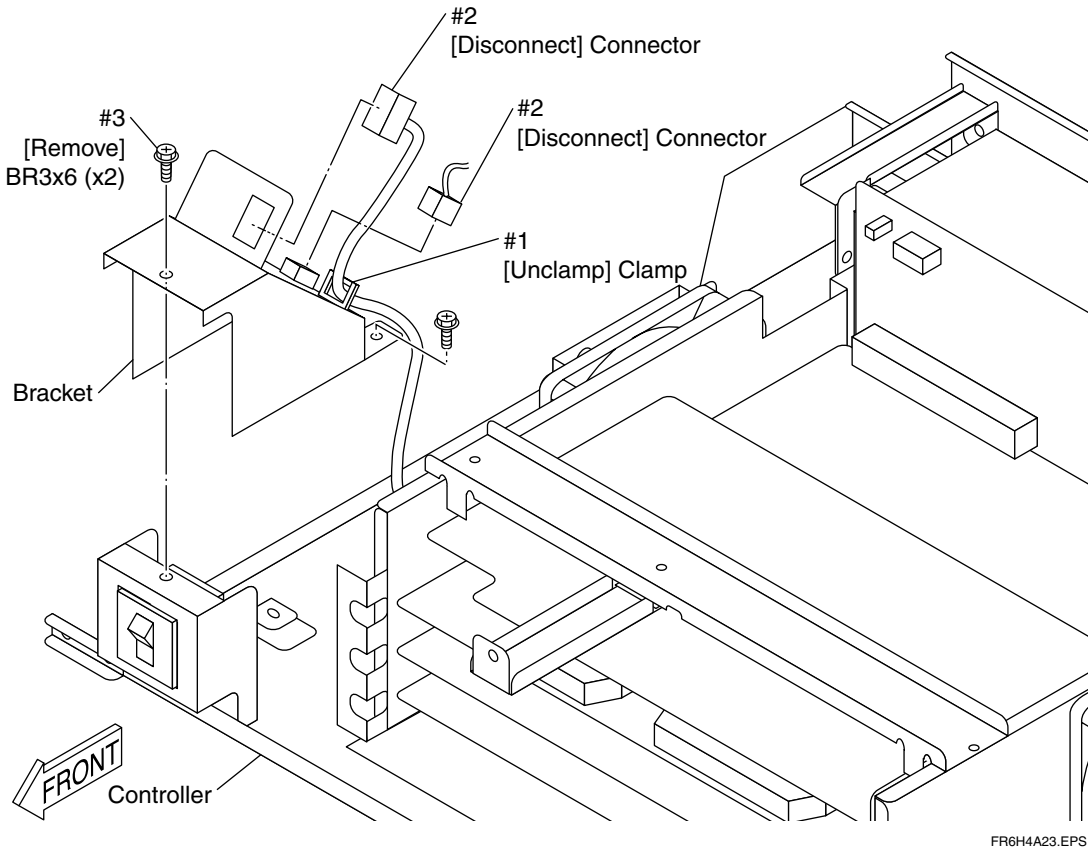
FR6H4A62.EPS

■ Removal Procedures

(1) Remove the controller.

☞ "11.1 Controller

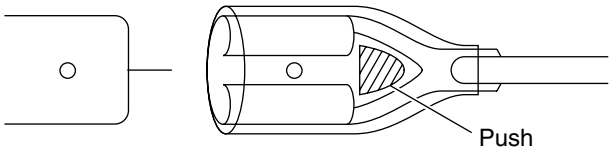
(2) Remove the bracket.



FR6H4A23.EPS

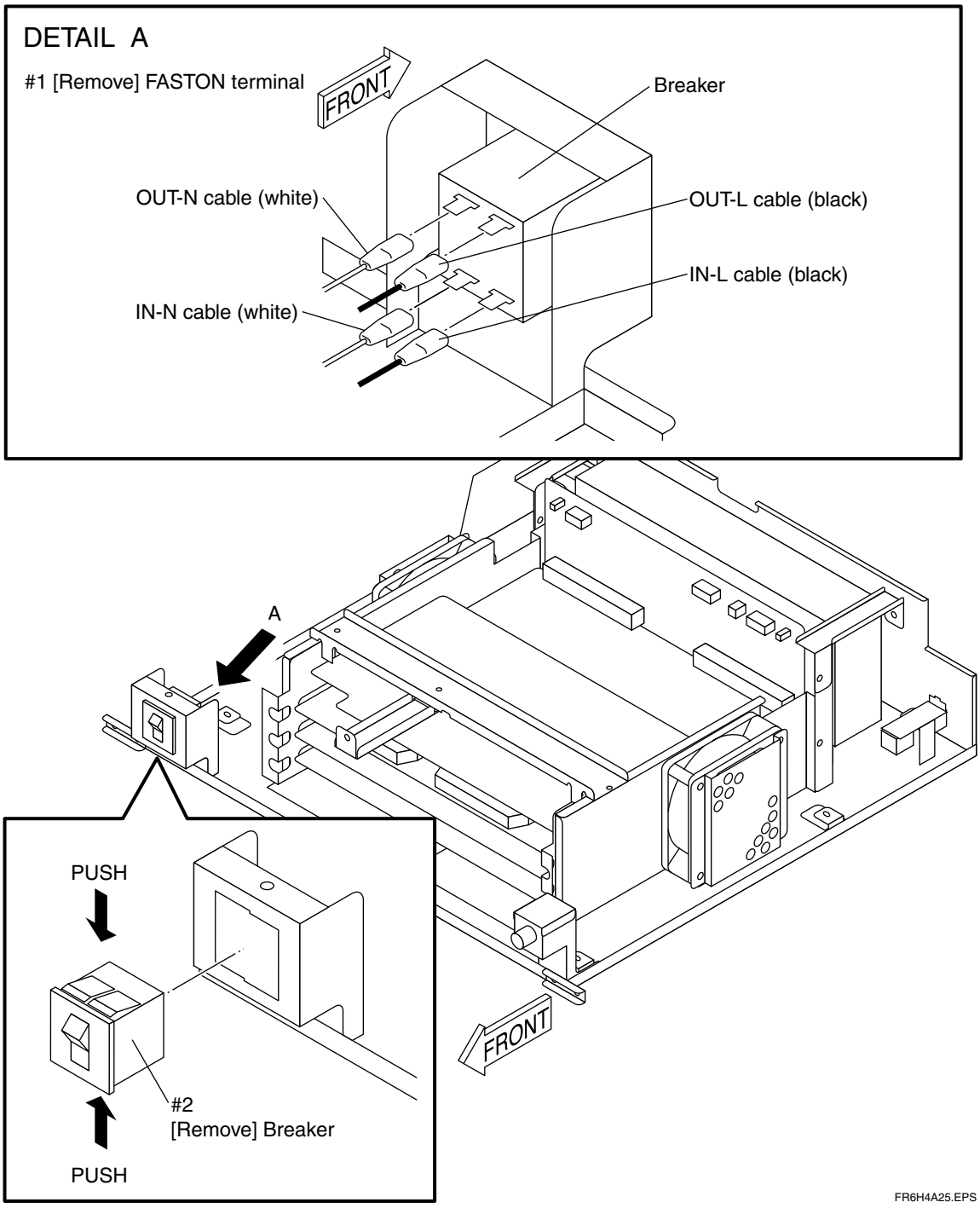
◆ ***NOTE*** ◆

To remove the FASTON terminal, push the shaded portion of the terminal illustrated below to detach it.



FR6H0001.EPS

(3) Remove the breaker.

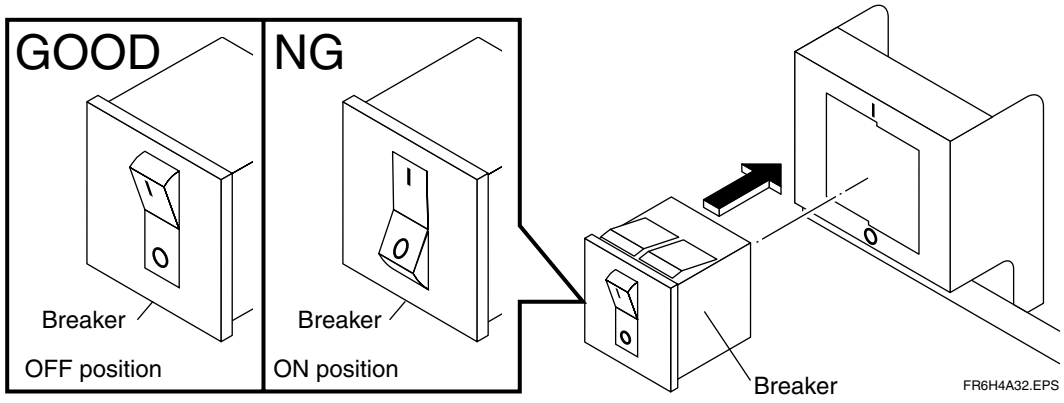


FR6H4A25.EPS

■ Reinstallation Procedures

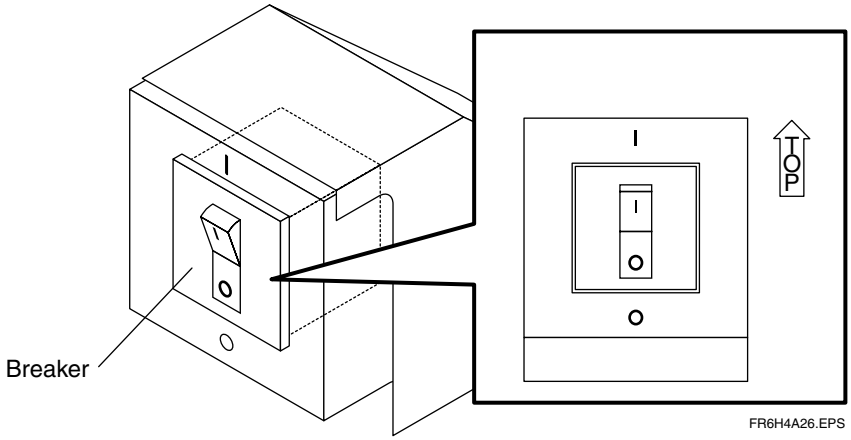
WARNING

Before installing the breaker, put the breaker switch in the OFF position.



CAUTION

The breaker should be mounted in its correct orientation.



For reinstallation, reverse the removal steps.

■ Check/Adjustment Procedures

- Make sure that the breaker is installed in its OFF position.
- Make sure that the breaker is mounted in its correct orientation.

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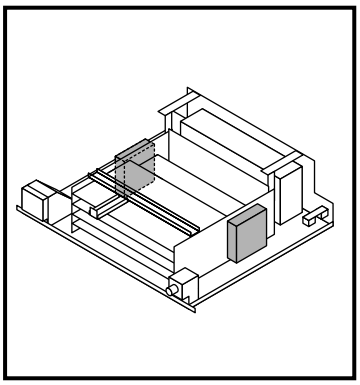
11.13 Fans (FAN1 and FAN2)



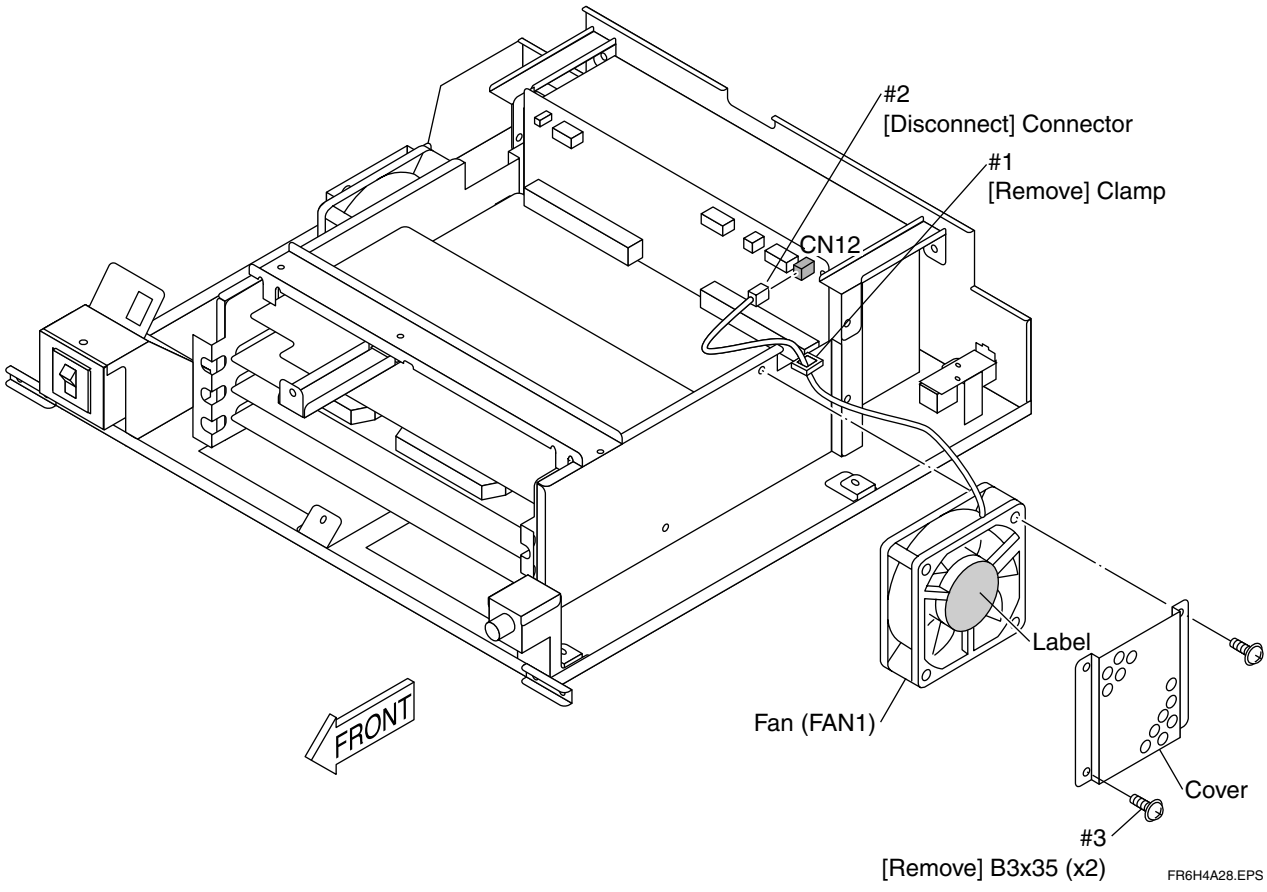
FR6H4A63.EPS

■ Removal Procedures

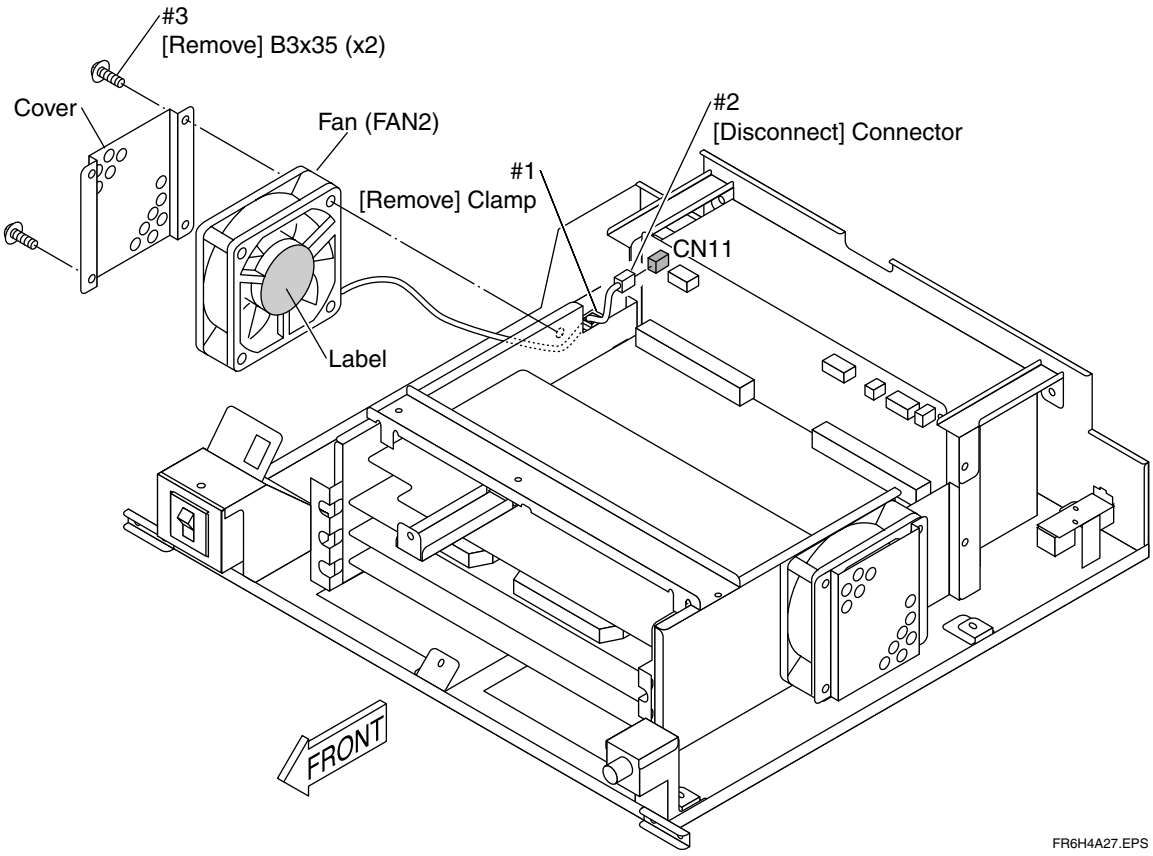
(1) Remove the controller.

☞ "11.1 Controller"

(2) Remove the fan (FAN1).



(3) Remove the fan (FAN2).



■ Reinstallation Procedures

◆ *INSTRUCTION* ◆

When installing the fan, orient its label as shown in the illustration.

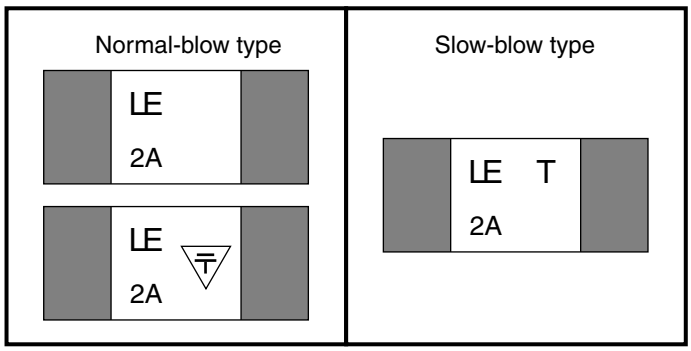
For installation, reverse the removal steps.

12. Replacing the Fuses and Fuse Locations

◆ *INSTRUCTION* ◆

There are two fuse types: normal-blow type and slow-blow type
The slow-blow type fuse has a mark "T" silk-screened on it.
When replacing the fuse, check its type.

● Example of silk-screened marks

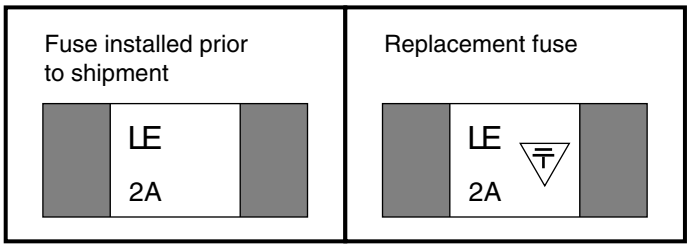


FR6H4C13.EPS

◇ *REFERENCE* ◇

The fuse (1A-5A) installed prior to shipment and a new replacement fuse (1A-5A) may have different silk-screened marks.

● Example of silk-screened marks



FR6H4C14.EPS

■ List of Fuses

Board	Code No.	Type	Rating (A)	Fuse number ✻
MTH12A	137S2097	Slow blow (T)	5	A11, A21, A31, A41, H11, J11
	137S2096	Slow blow (T)	4	B11, B21, C11
	137S2094	Slow blow (T)	3	C21, C31
	137S2092	Slow blow (T)	2	K11
SCN12A	137S2084	Slow blow (T)	1.5	A22, H12, H13, H14, J12
SNS12A	137S2084	Slow blow (T)	1.5	A32, A33
	137S2083	Slow blow (T)	1	A34
	137S1219	Normal blow	500 m	A35
DRV12A	137S2094	Slow blow (T)	3	D11, D21, D41, D51, E11, E21, E31, E51, L31
	137S2092	Slow blow (T)	2	L11
	137S1220	Normal blow	2	D31, E41, L21

✻ Fuse number: Number indicated in the fuse block diagram.

Tbl_MC213_LB.EPS

■ Fuse Replacement Procedures

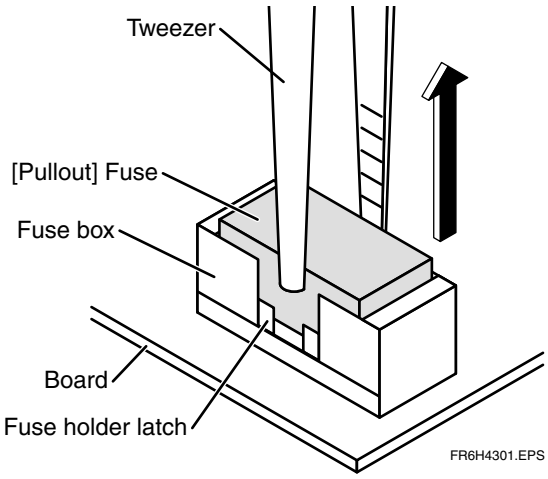
CAUTIONS

- *When servicing any printed circuit board, be sure to wear an anti-static wristband to ground your body. If your body is not grounded, static electricity built on your body may cause damage to electronic parts on the board.*
- *When replacing the fuse, check the type and rating (A) of the fuse to be replaced, and replace it with a fuse of the same type.*
  At the same time, check the rating (A) silk-screened on the board as well.
- *To replace the fuse, use tweezers and exercise care not to damage the rib of the fuse holder.*

(1) Remove the board.

☞ “11. Removing and Reinstalling the Controller”

(2) Pull out the fuse and replace it with a new one.



12.1 MTH12A Board Fuses

■ Removal Procedures

(1) Remove the MTH12A board.

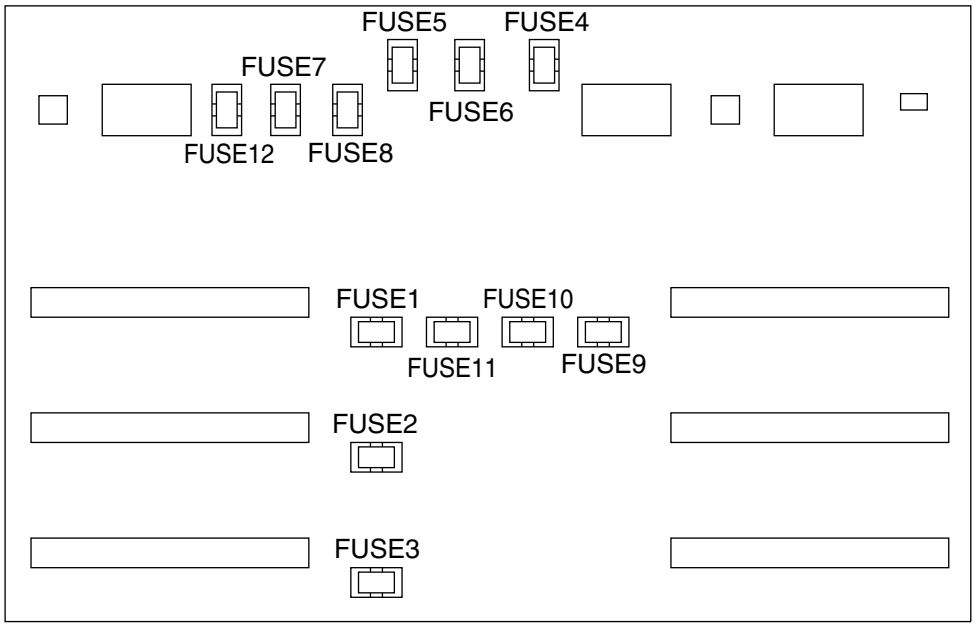
☞ "11.7 MTH12A Board"

(2) Replace the fuse.

☞ "■ Fuse Replacement Procedures"

■ Fuse Locations

MTH12A board



FR6H4C03.EPS

■ Fuse Information

Board indications	Type	Rating (A)	Fuse number ✲
FUSE1	Slow blow (T)	5	A31
FUSE2	Slow blow (T)	5	A21
FUSE3	Slow blow (T)	5	A11
FUSE4	Slow blow (T)	5	A41
FUSE5	Slow blow (T)	4	B11
FUSE6	Slow blow (T)	4	B21
FUSE7	Slow blow (T)	4	C11
FUSE8	Slow blow (T)	3	C21
FUSE9	Slow blow (T)	5	H11
FUSE10	Slow blow (T)	5	J11
FUSE11	Slow blow (T)	2	K11
FUSE12	Slow blow (T)	3	C31

✲ Fuse number: Number indicated in the fuse block diagram.

Tbl_MC214_LB.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

12.2 SCN12A Board Fuses

■ Removal Procedures

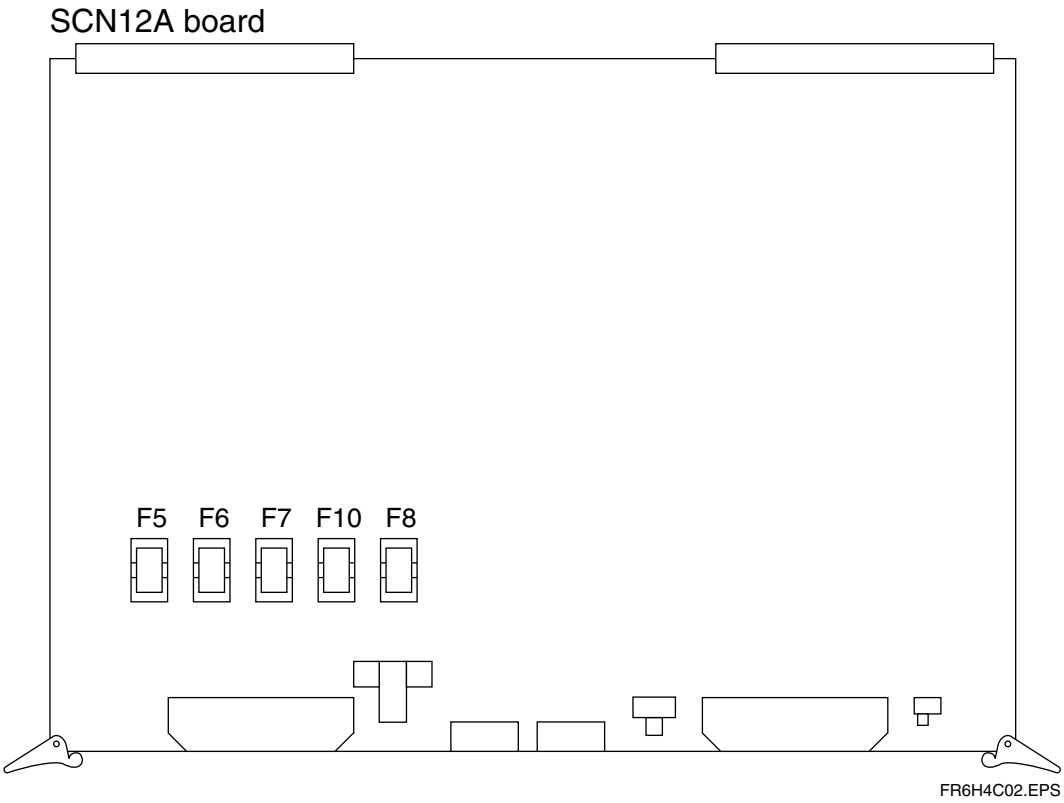
(1) Remove the SCN12A board.

☞ "11.3 SCN12A Board"

(2) Replace the fuse.

☞ "■ Fuse Replacement Procedures"

■ Fuse Locations



■ Fuse Information

Board indications	Type	Rating (A)	Fuse number ✲
F5	Slow blow (T)	1.5	A22
F6	Slow blow (T)	1.5	H14
F7	Slow blow (T)	1.5	H12
F8	Slow blow (T)	1.5	H13
F10	Slow blow (T)	1.5	J12

✲ Fuse number: Number indicated in the fuse block diagram.

Tbl_MC215_LB.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

12.3 SNS12A Board Fuses

■ Removal Procedures

(1) Remove the SNS12A board.

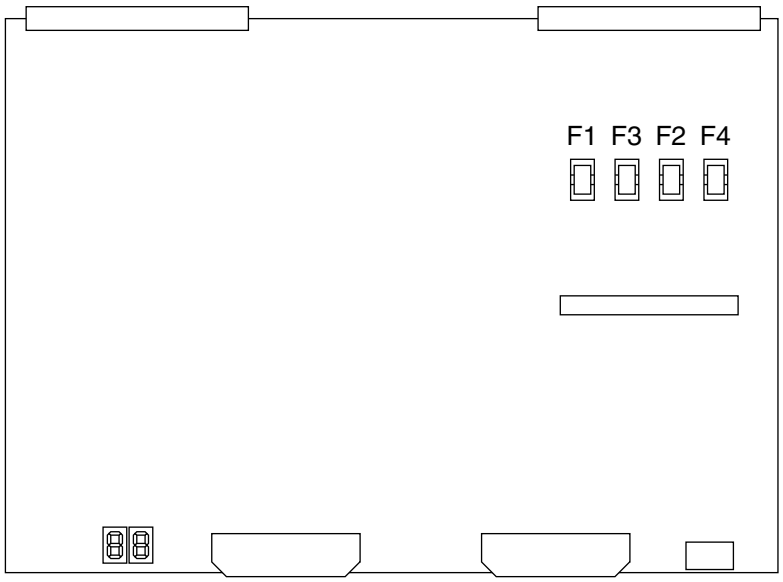
☞ "11.5 SNS12A Board"

(2) Replace the fuse.

☞ "■ Fuse Replacement Procedures"

■ Fuse Locations

SNS12A board



FR6H4C04.EPS

■ Fuse Information

Board indications	Type	Rating (A)	Fuse number ✲
F1	Normal blow	500 m	A35
F2	Slow blow (T)	1.5	A34
F3	Slow blow (T)	1	A33
F4	Slow blow (T)	1.5	A32

✲ Fuse number: Number indicated in the fuse block diagram.

Tbl_MC216_LB.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

12.4 DRV12A Board Fuses

■ Removal Procedures

(1) Remove the DRV12A board.

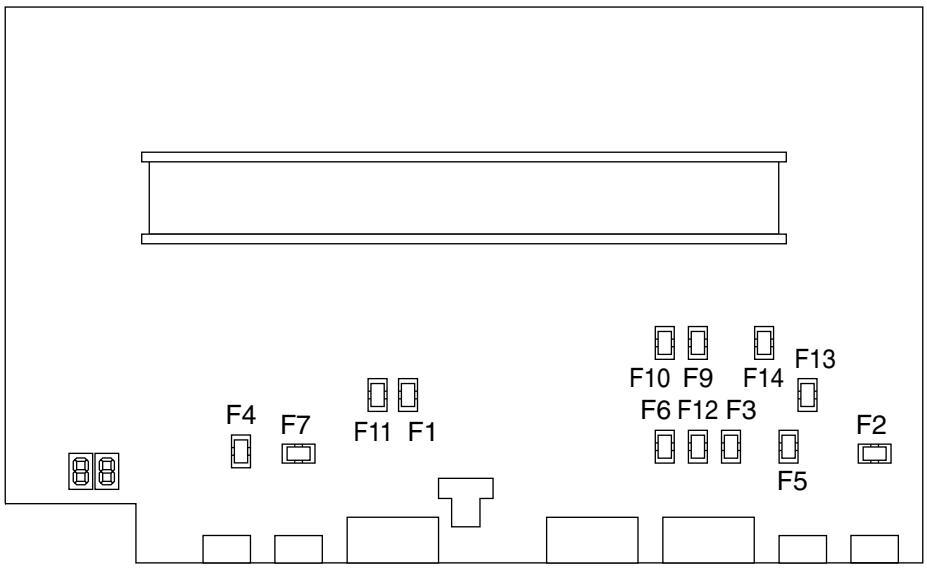
☞ "11.6 DRV12A Board"

(2) Replace the fuse.

☞ "■ Fuse Replacement Procedures"

■ Fuse Locations

DRV12A board



FR6H4C05.EPS

■ Fuse Information

Board indications	Type	Rating (A)	Fuse number ✲
F1	Slow blow (T)	3	D11
F2	Slow blow (T)	3	E21
F3	Slow blow (T)	3	E11
F4	Slow blow (T)	3	D41
F5	Slow blow (T)	3	E31
F6	Slow blow (T)	3	D21
F7	Slow blow (T)	2	L11
F9	Normal blow	2	E41
F10	Normal blow	2	D31
F11	Slow blow (T)	3	D51
F12	Slow blow (T)	3	E51
F13	Normal blow	2	L21
F14	Slow blow (T)	3	L31

✲ Fuse number: Number indicated in the fuse block diagram.

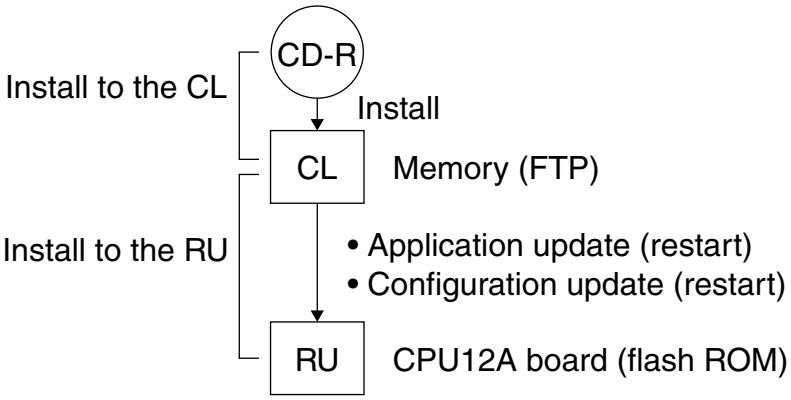
Tbl_MC217_LB.EPS

■ Reinstallation Procedures

For reinstallation, reverse the removal steps.

13. Version Updating Procedures

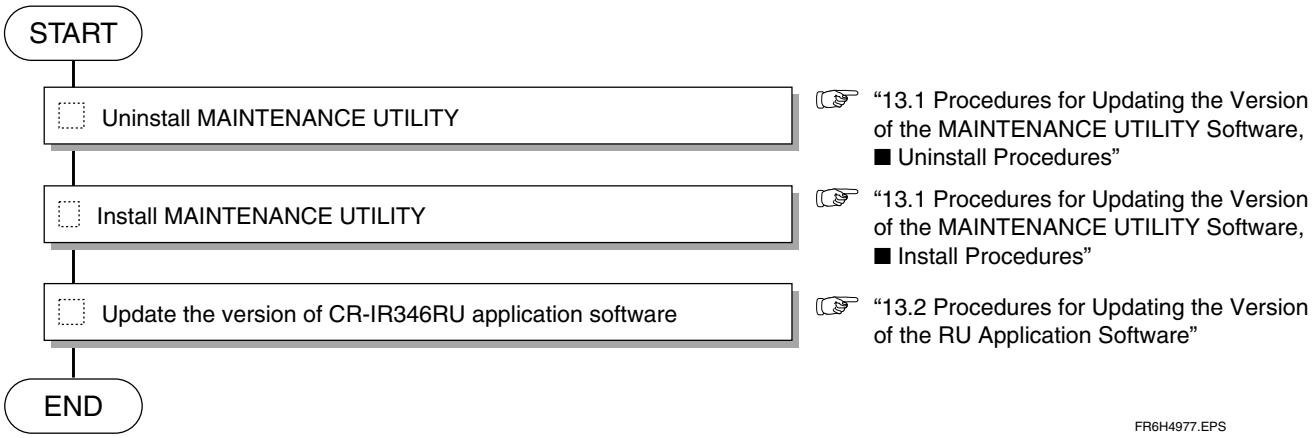
A version update for the CL/RU is executed in the following flow.



FR6H4D01.EPS

■ Version Update Flow

When the version of the CR-IR346RU software is to be updated, the following flow should be observed.


START
Uninstall MAINTENANCE UTILITY
☞ "13.1 Procedures for Updating the Version of the MAINTENANCE UTILITY Software, ■ Uninstall Procedures"
Install MAINTENANCE UTILITY
☞ "13.1 Procedures for Updating the Version of the MAINTENANCE UTILITY Software, ■ Install Procedures"
Update the version of CR-IR346RU application software
☞ "13.2 Procedures for Updating the Version of the RU Application Software"
END

FR6H4977.EPS

■ Combination of CR-IR346RU Software Version and Scanning Optics Unit Version

When updating the version of the CR-IR346RU software, check the version combination table below and replace the scanning optics unit as well.

CR-IR346RU software version	Scanning optics unit version
–A02	–839Y0035A/B
A02–	839Y0035C

TR6H4904.EPS

13.1 Procedures for Updating the Version of the MAINTENANCE UTILITY Software

CAUTIONS

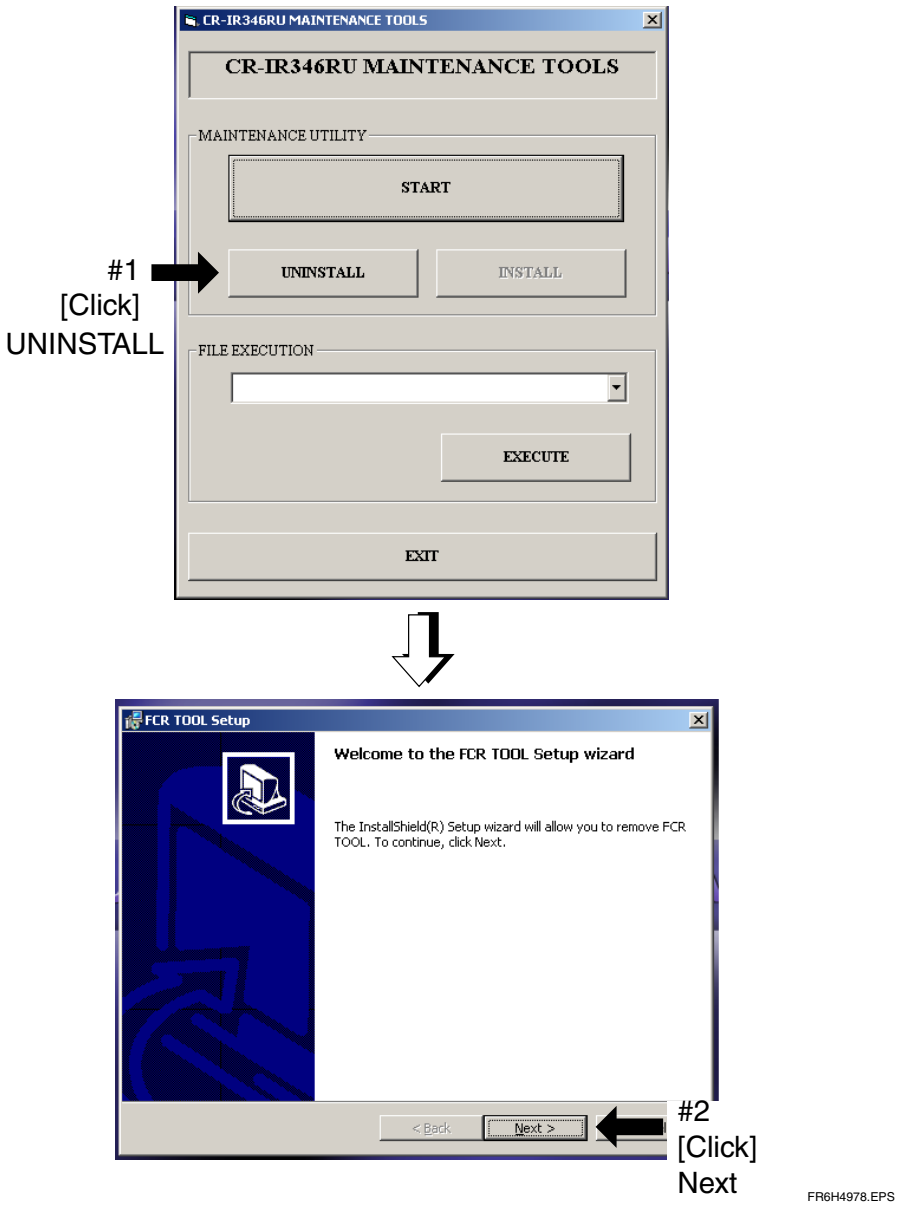
- *Do not power OFF the CL/RU during version update. If it is powered OFF during version update, the machine will not boot up.*
- *Before performing the install procedures, quit all the applications running on the CL.*

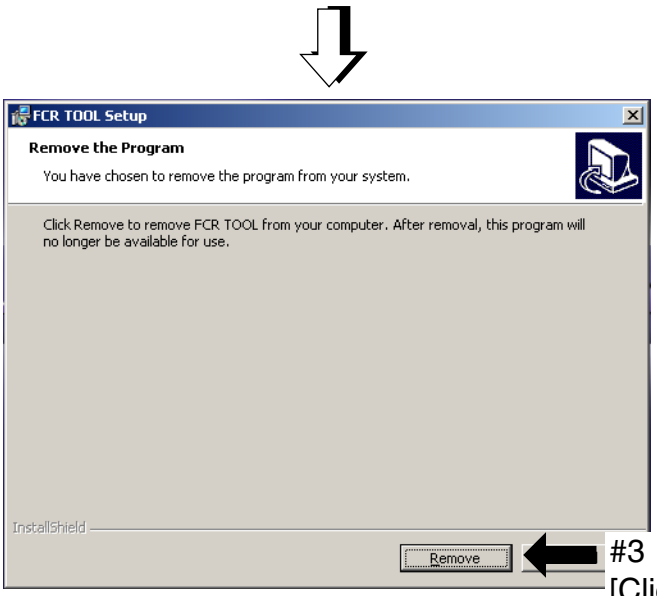
◇ REFERENCE ◇

The version update of the MAINTENANCE UTILITY software can be implemented by uninstalling the current version of the software and then installing a newer version.
The current version can be uninstalled by use of a newer version of the Ver.up CD-R.

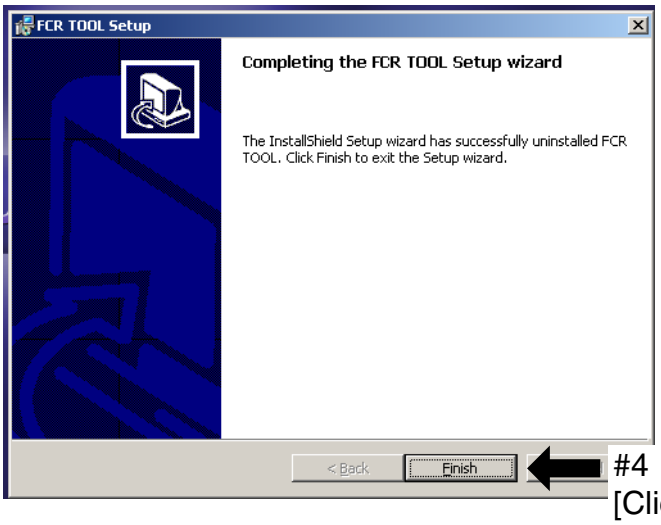
■ Uninstall Procedures

(1) Set the Ver.up CD-R in the CL and uninstall the software as instructed on the CL screen.




FCR TOOL Setup
Remove the Program
You have chosen to remove the program from your system.
Click Remove to remove FCR TOOL from your computer. After removal, this program will no longer be available for use.
InstallShield
Remove

#3
[Click]
Remove

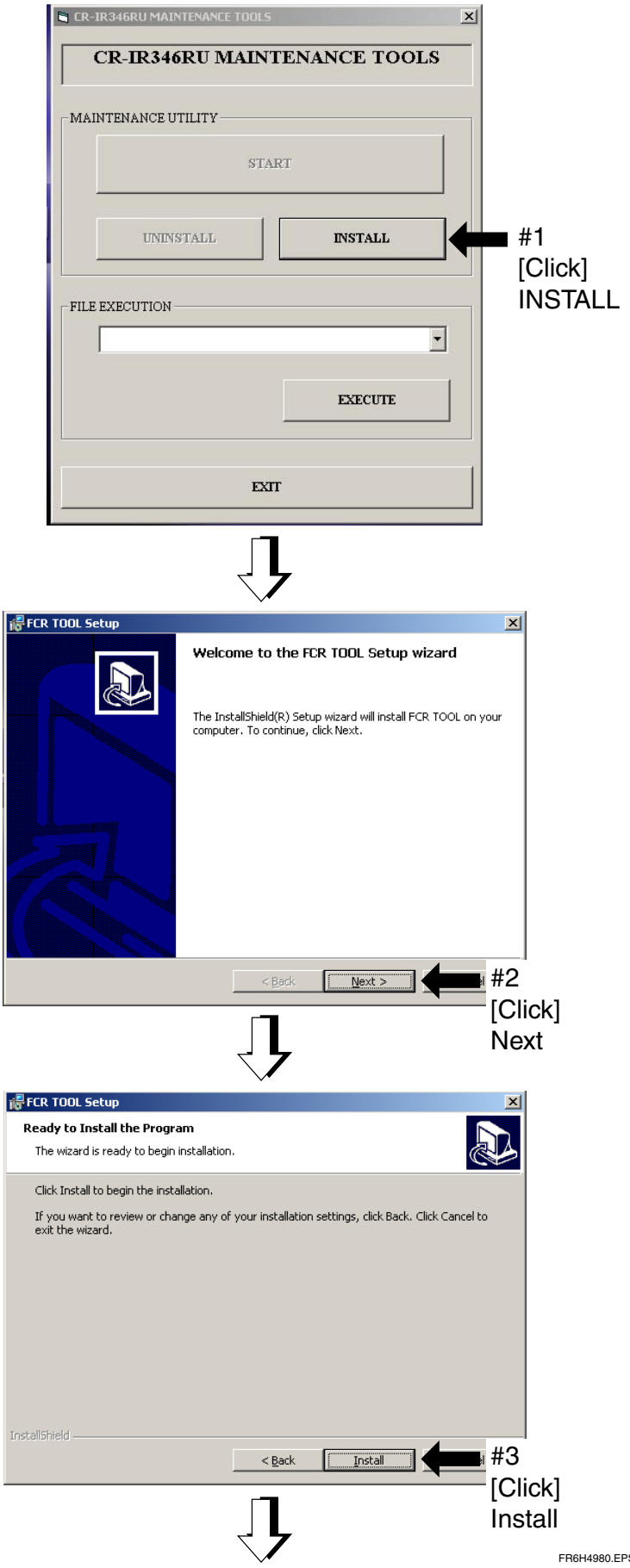

FCR TOOL Setup
Completing the FCR TOOL Setup wizard
The InstallShield Setup wizard has successfully uninstalled FCR TOOL. Click Finish to exit the Setup wizard.
< Back
Finish

#4
[Click]
Finish

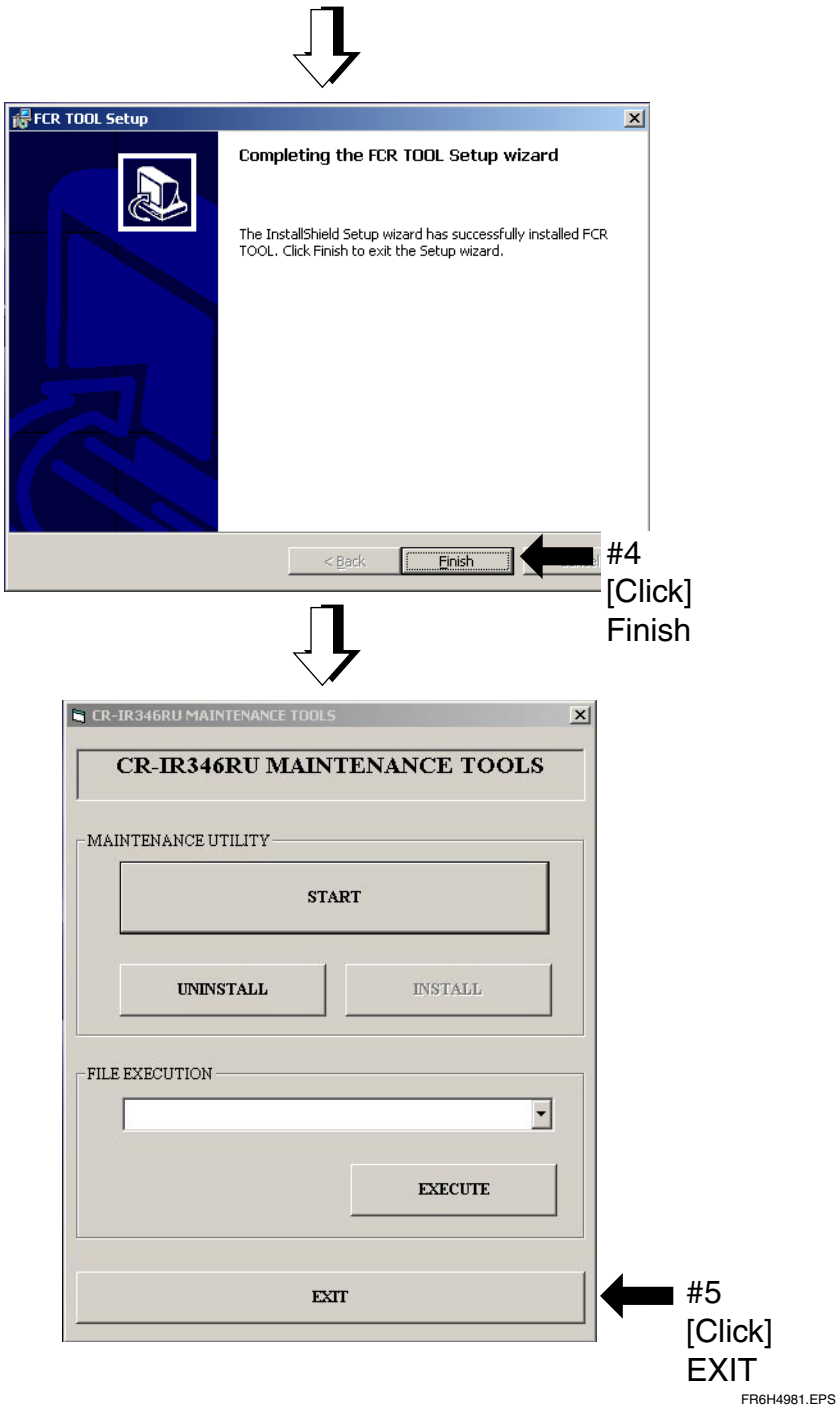
FR6H4979.EPS

■ Install Procedures

(1) Subsequent to the uninstall procedures, install the software as instructed on the CL screen.



FR6H4980.EPS


FCR TOOL Setup
Completing the FCR TOOL Setup wizard
The InstallShield Setup wizard has successfully installed FCR TOOL. Click Finish to exit the Setup wizard.
< Back
Finish
#4
[Click]
Finish
CR-IR346RU MAINTENANCE TOOLS
CR-IR346RU MAINTENANCE TOOLS
MAINTENANCE UTILITY
START
UNINSTALL
INSTALL
FILE EXECUTION
EXECUTE
EXIT
#5
[Click]
EXIT
FR6H4981.EPS

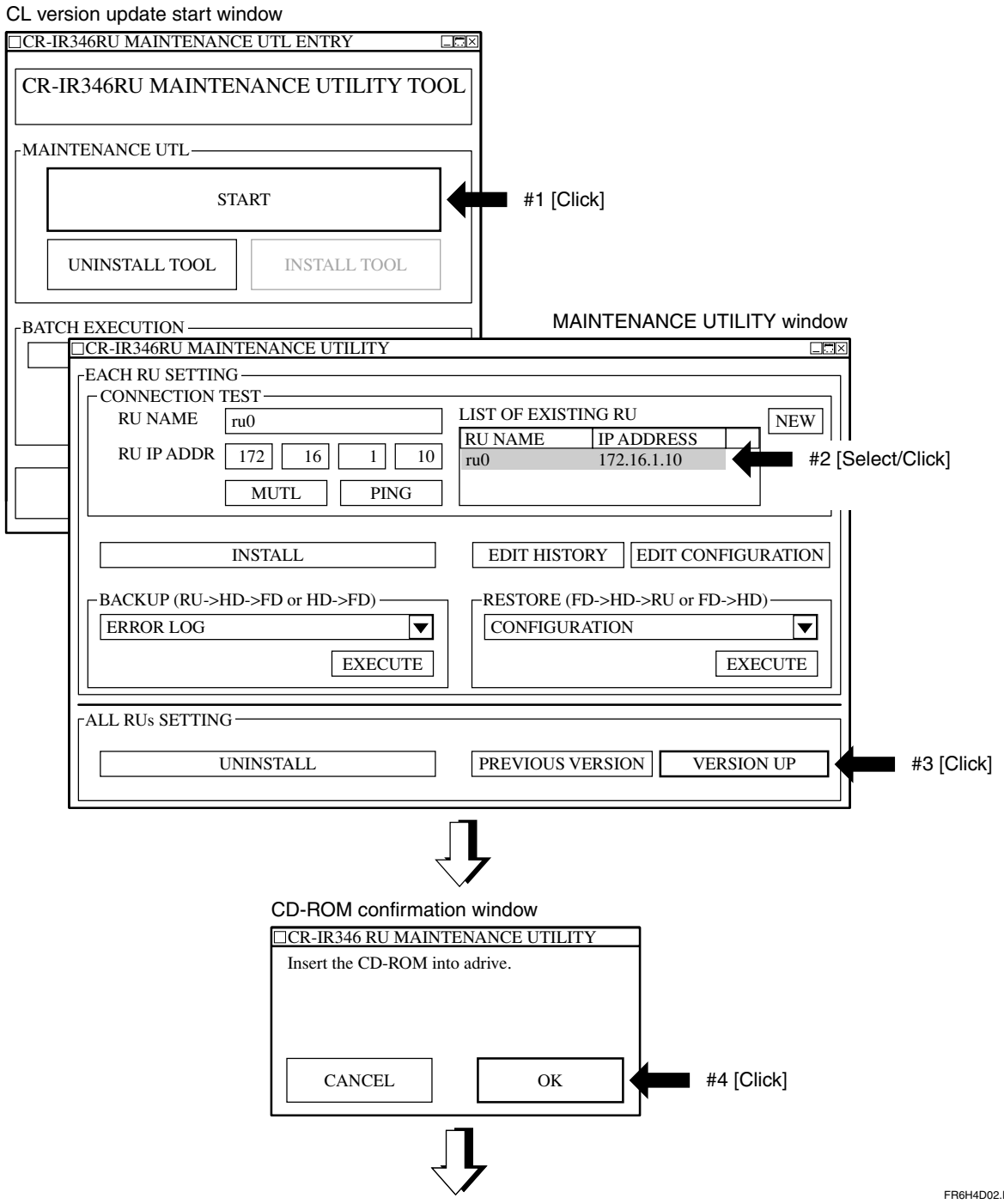
13.2 Procedures for Updating the Version of the RU Application Software

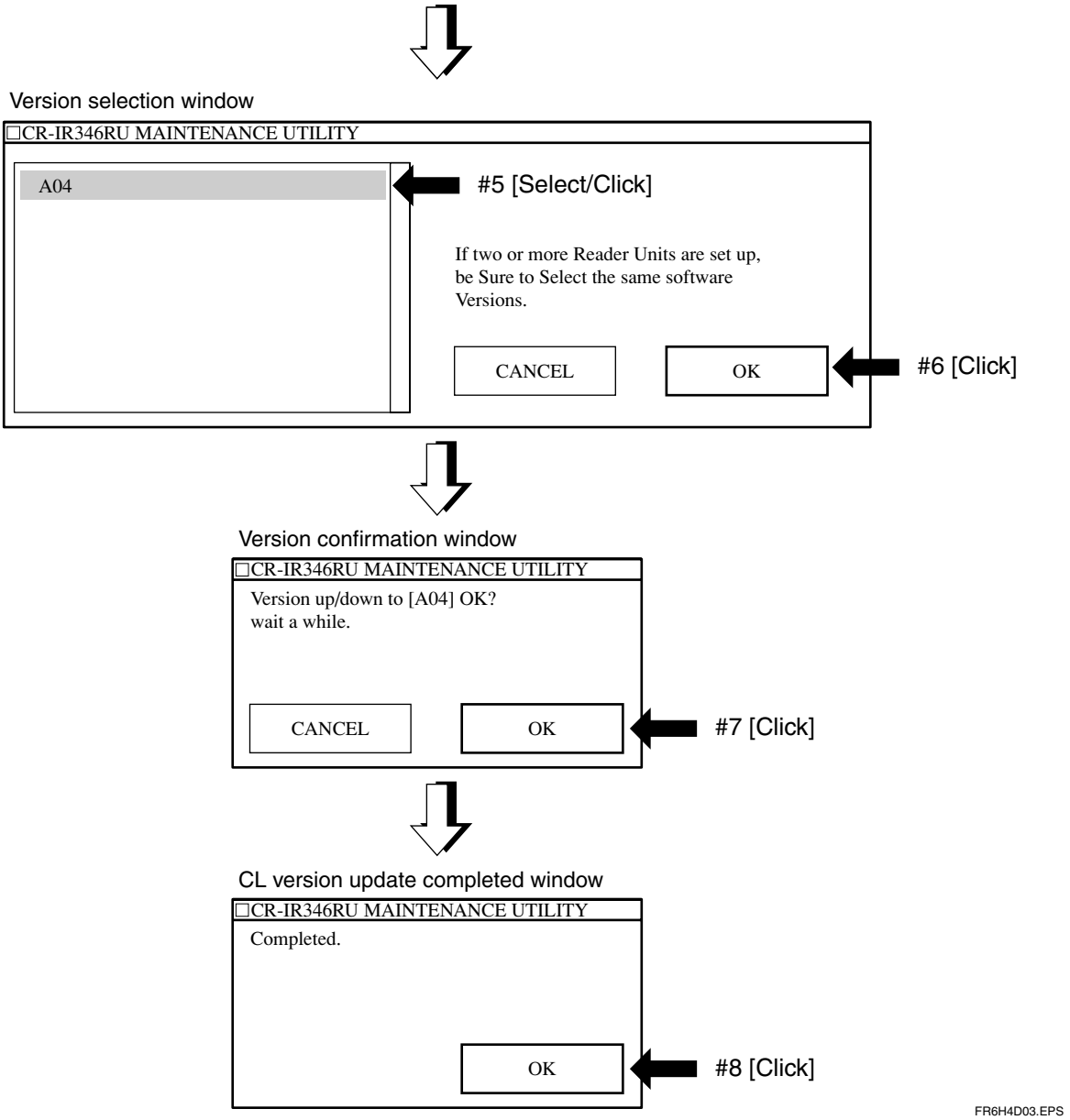
■ Install to the CL

CAUTIONS

- *Do not power OFF the CL/RU during version update. If it is powered OFF during version update, the machine will not boot up.*
- *Before performing the install procedures, quit all the applications running on the CL.*

(1) Set the Ver.up CD-R in the CL and observe the on-screen instructions of the CL to perform version update.





(2) Take out the Ver.up CD-R.

■ Install to the RU

Installation to the RU consists of updating the reader unit application software and updating the configuration.

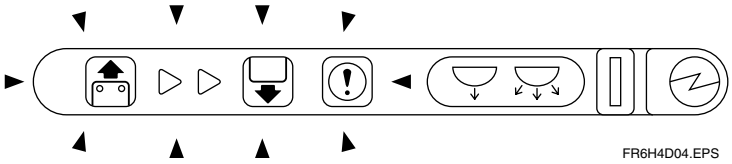
CAUTION

Do not power OFF the CL/RU during version update.
If it is powered OFF during version update, the machine will not boot up.

(1) Power OFF the RU and then back ON.

◇ ***REFERENCE*** ◇

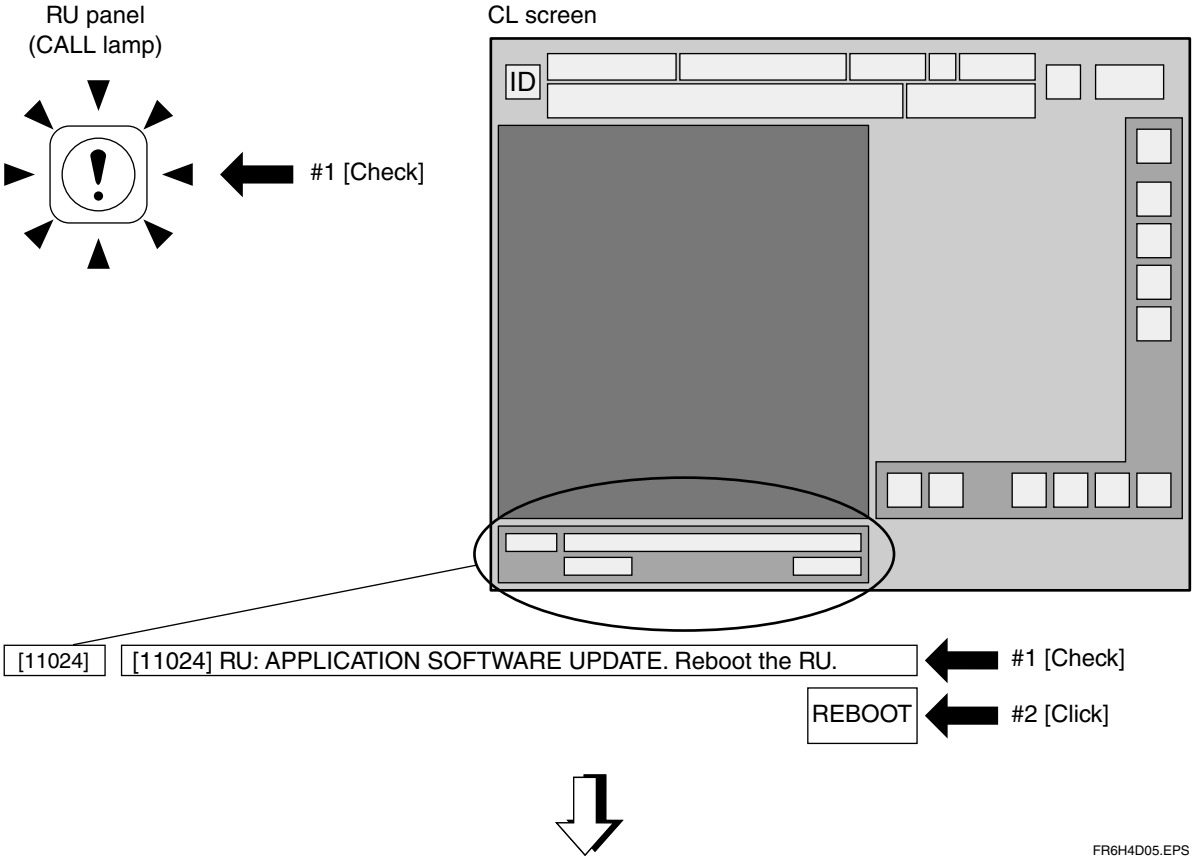
When the RU is powered OFF and then back ON, the installation from the CL starts.
At this time, all the indicators on the panel of the RU are illuminated, and an audible alarm is generated.



FR6H4D04.EPS

(2) Verify that the RU call lamp is illuminated, with [11024] displayed on the CL screen, and restart the RU from the CL screen.

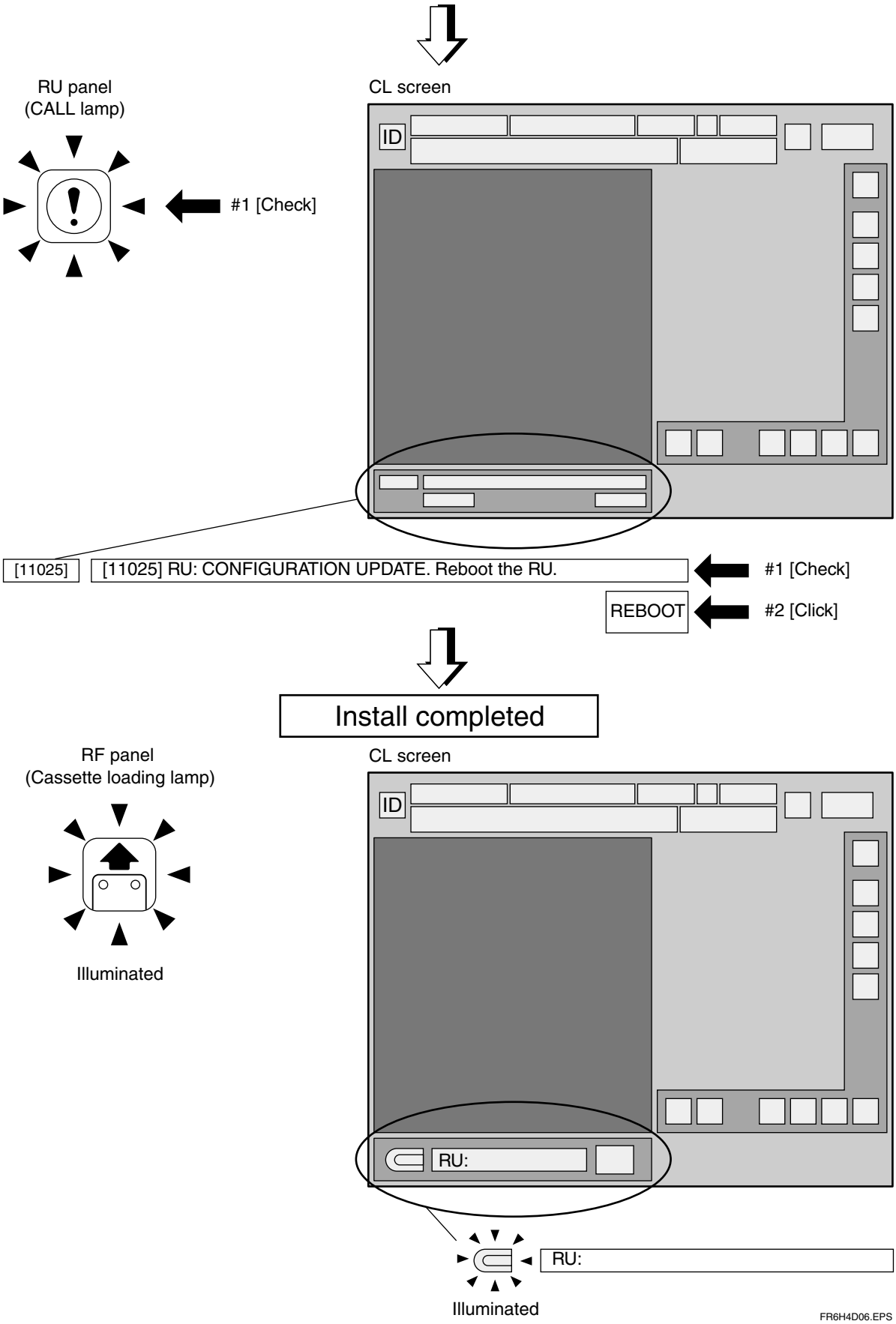
When it is restarted, the RU is power OFF and then back ON with all indicators on the panel illuminated, and an audible alarm (three short beeps) is generated.



FR6H4D05.EPS

(3) Verify that the RU call lamp is illuminated, with [11025] displayed on the CL screen, and restart the RU from the CL screen.

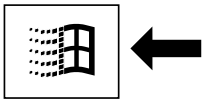
When it is restarted, all the indicators on the panel are illuminated, and an audible alarm is generated.



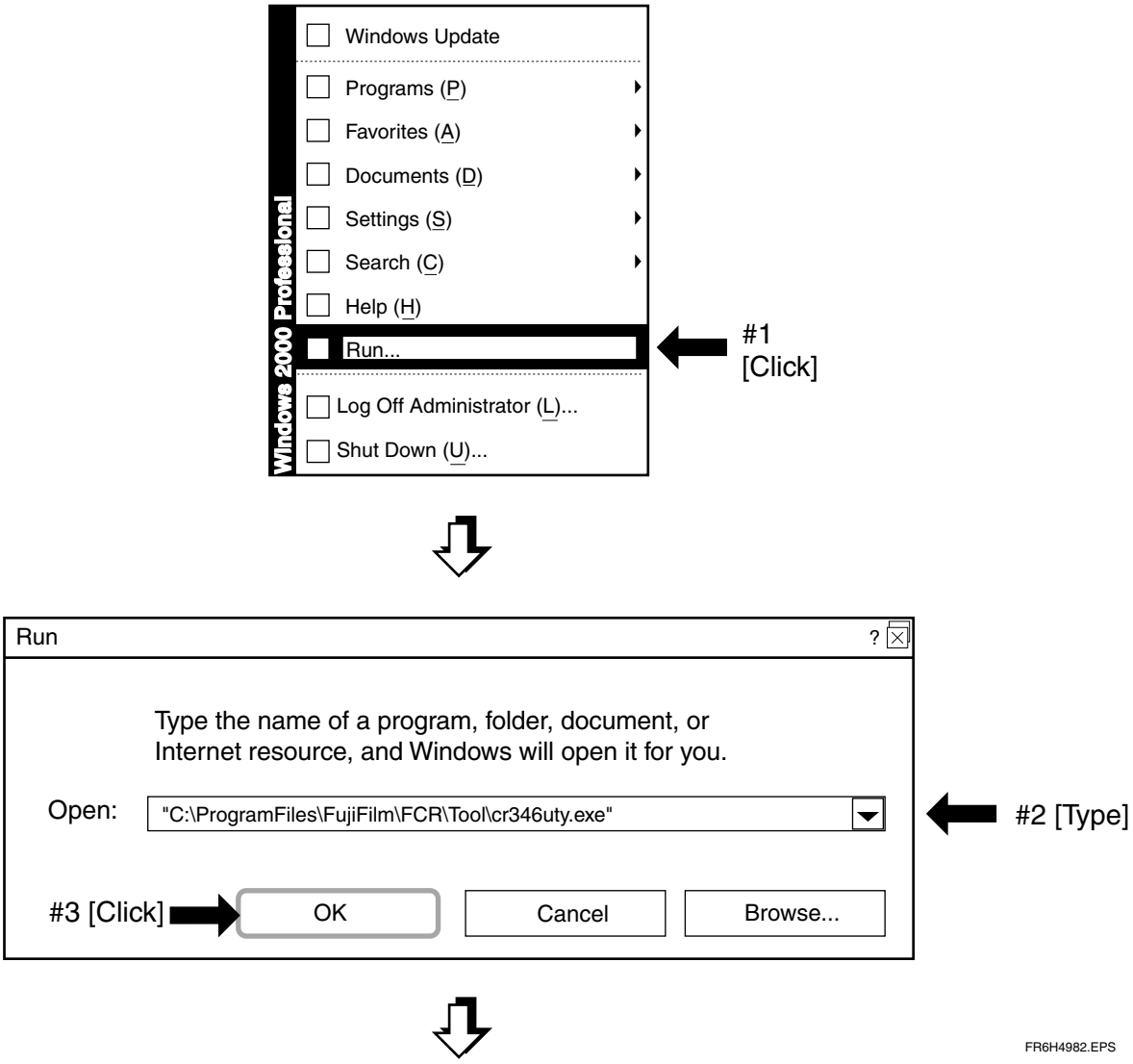
■ Procedures for Confirming Version Update

After completing the installation to the RU, confirm the version update.

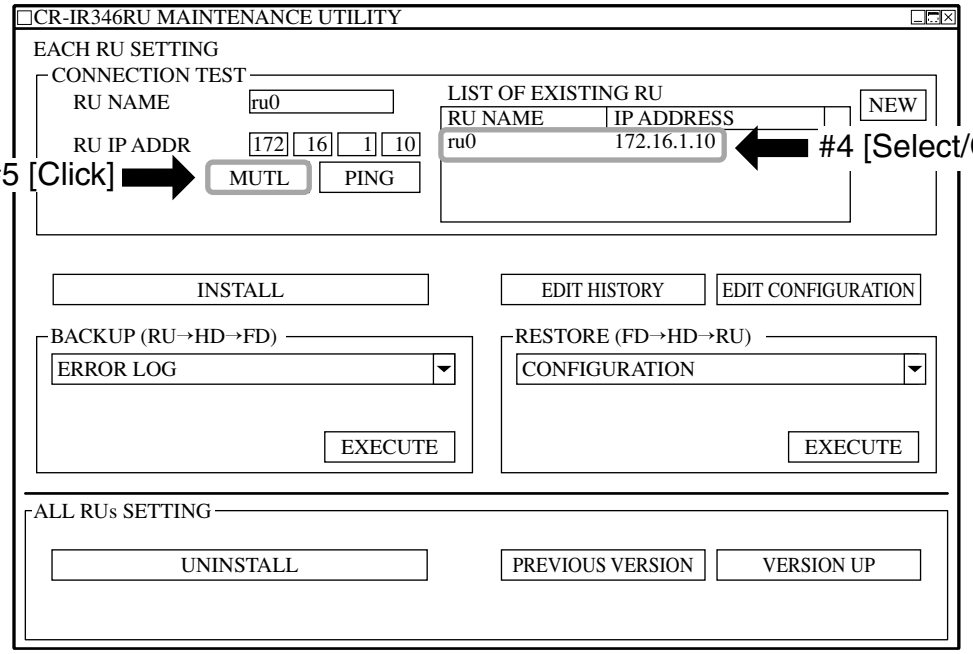
(1) Press the [Windows] key to open the Start menu of Windows.

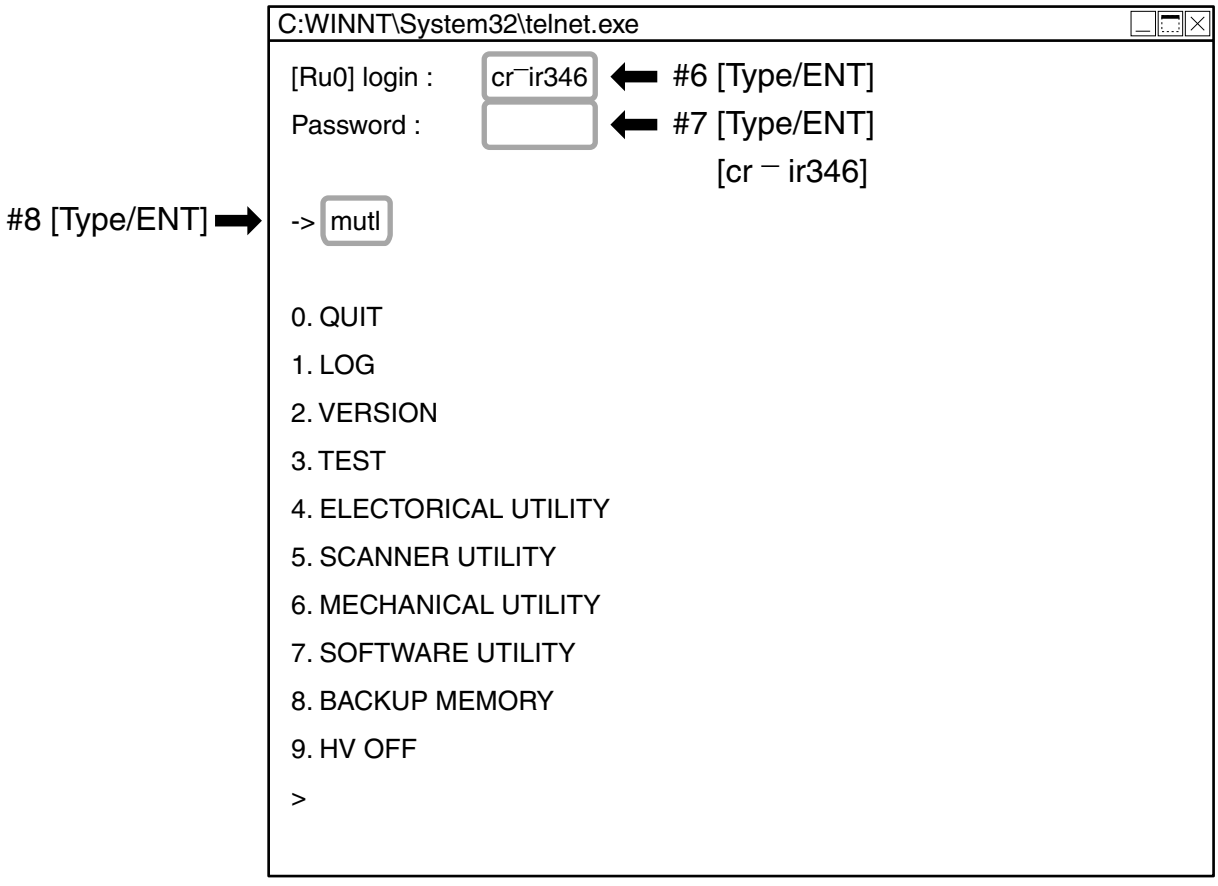


(2) Select [Run...] from the Start menu of Windows, and type ["C:\ProgramFiles\FujiFilm\FCR\Tool\cr346uty.exe"] to open the MAINTENANCE UTILITY, and start M-Utility.



RU SERVICE UTILITY screen





FR6H4983.EPS

(3) Select VERSION to confirm the version of the CR-IR346RU application software.
Example: When the version is updated to A03 or A04